

THE *Country* GUIDE

CANADA'S NATIONAL FARM MONTHLY

THREE DAY LOAN

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Made-to-Measure
Fruit Trees

Fashion for Fall

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The Fruit Vendor

AUGUST 1963 — 25¢

Letters

Something to Think About

I read the "Up-to-Date Farm Market Forecasts" (Guideposts) regularly, and consider them superior to other predictions made elsewhere.

We have to realize that Canada, as the most reliable and abundant bread basket of the world, must never lose sight of the fact that our prairies are for us an inexhaustible source of work, trade, food and even survival, when ore has been mined, forests cleared and oil wells run dry.

Cultivating the prairies should have the Nation's most urgent attention. There, education and research should become Canada's pride!

Country Guide editorials are easy to understand. From time to time they endorse one fact: If Canada exports, it is not that we have an army of good salesmen all over the world; rather it is because the world needs our products and appreciates their quality. Buyers arrive with cash and pick our products up.

However, international competition increases tremendously. We should continuously study which countries are entering the grain mar-

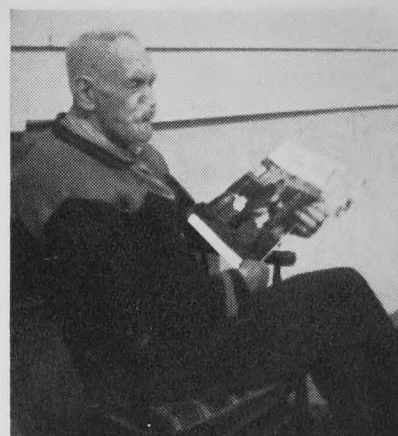
ket, what they produce, what quantities they sell at what price and to whom. Do they make long term contracts? Do they erect storage elevators for times of crop failure? Allow me to suggest that you add competitive information which would guide farmers in making production decisions.

M.H.R.D.,
Vancouver, B.C.

92 Years Young

I am enclosing a snap of Mr. Frank Burton of Stoney Point Farm, 5 miles East of Vanguard. It was taken on his 92nd birthday. Mr.

Burton has been a subscriber to your paper since it started. He was very active in the Grain Growers and often



met the editor of The Guide at their convention in the old days.

Mr. Burton is still active . . . Since his 80th birthday he has made several trips to Ohio for the World Series. He brings back white oak which he makes into baskets as a hobby. He also spends a lot of spare time reading, and never misses The Guide.

Mrs. D.B.,
Vanguard, Sask.

Fiction Pleases

I just want to thank you for the story "The Rickshaw Boy" by Cliff Faulkner. It was heartwarming. It is a wonderful gift to be able to make others feel that they need to share in being their "Brother's Keeper."

Mrs. G.A.,
Meadow Lake, Sask.

. . . Your short story in April and May, "The Rickshaw Boy", is excellent. It is one of the very best short story articles I have read. It is much better than the average one that appears in The Saturday Evening Post. In fact, few of their stories are equal to yours. They have the odd good one, but the rest are "dizzy" rubbish. Good luck to you, Sir.

O.A.W.,
Pambrun, Sask.

Dinner Time

It is dinner time at the Weaver farm, with Tiger begging, Trigger eager, while dog Blackie looks on with interest. This happens all the time here at the farm, but although



we are used to it, visitors are always especially interested.

Your magazine is an excellent, all-member-of-the-family paper. I am grateful that you introduced me to it.

Mrs. VIVIAN WEAVER,
R.R. No. 7, Chatham, Ont.



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THE *Country* GUIDE

Incorporating The Nor'West Farmer and Farm and Home

CANADA'S NATIONAL FARM MONTHLY

Editor: LORNE HURD

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DON BARON, Eastern Canada

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GWEN LESLIE

In This Issue



Ken Wilson

GRASS IS WORTH MORE THAN \$400 AN ACRE on the Ken Wilson farm at Al-
liston, Ont. Read how Ken, seen on the left,
keeps an 80-cow beef herd, raises 150 mar-
ket cattle and 700 hogs a year all off 215
acres on pages 11 and 12.

KELVA AND FRANK GATTEY, of Al-
berta's Cross Bar Ranch, offer open-hearted
hospitality in a new home that reveals its
scenic surroundings by the generous use of
glass. See page 35.

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COVER: A familiar scene in the Okanagan Valley these days is the road-
side fruit stand. This one was located near Osoyoos, B.C.

—Donovan Clemson photo.

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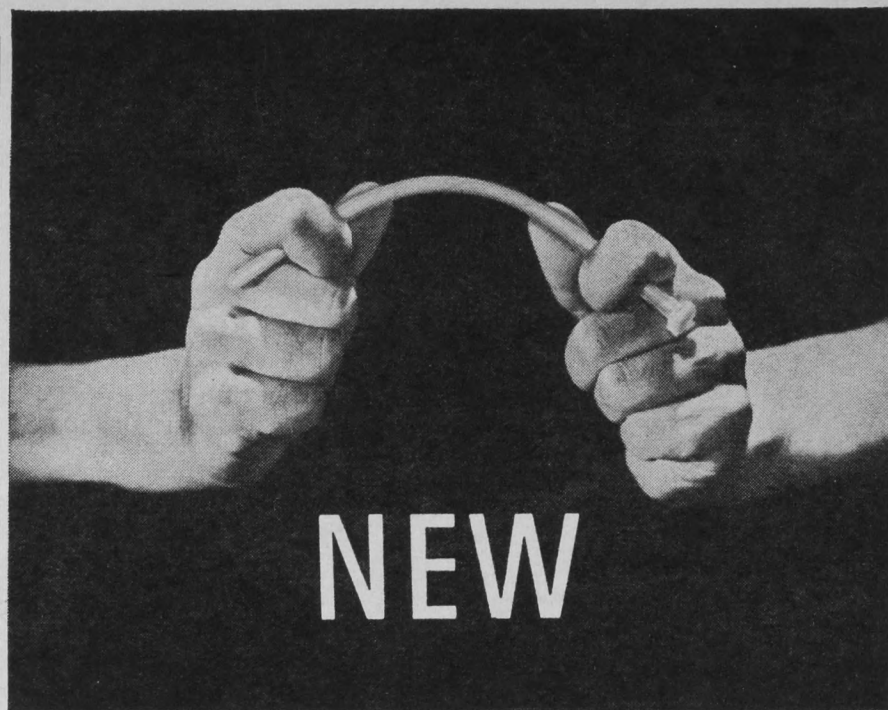
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thrown off and doesn't "bind" as
it does with conventional teeth.

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about 250 acres I have
yet to pick up a stone,
and I haven't as yet seen
a stone flip ahead
in the swath.

Don Turner
Weyburn
Sask.

Flexi Tooth makes a
good pick up out of a
poor one. It picks up
every straw, be it a
heavy crop or a
light one.

Roy A. Gibbs
McTaggart, Sask.

Replacement costs with
Flexi Tooth are
negligible. This set
should last me about
five years.

Bill Rekrutiak
Lloydminster, Sask.



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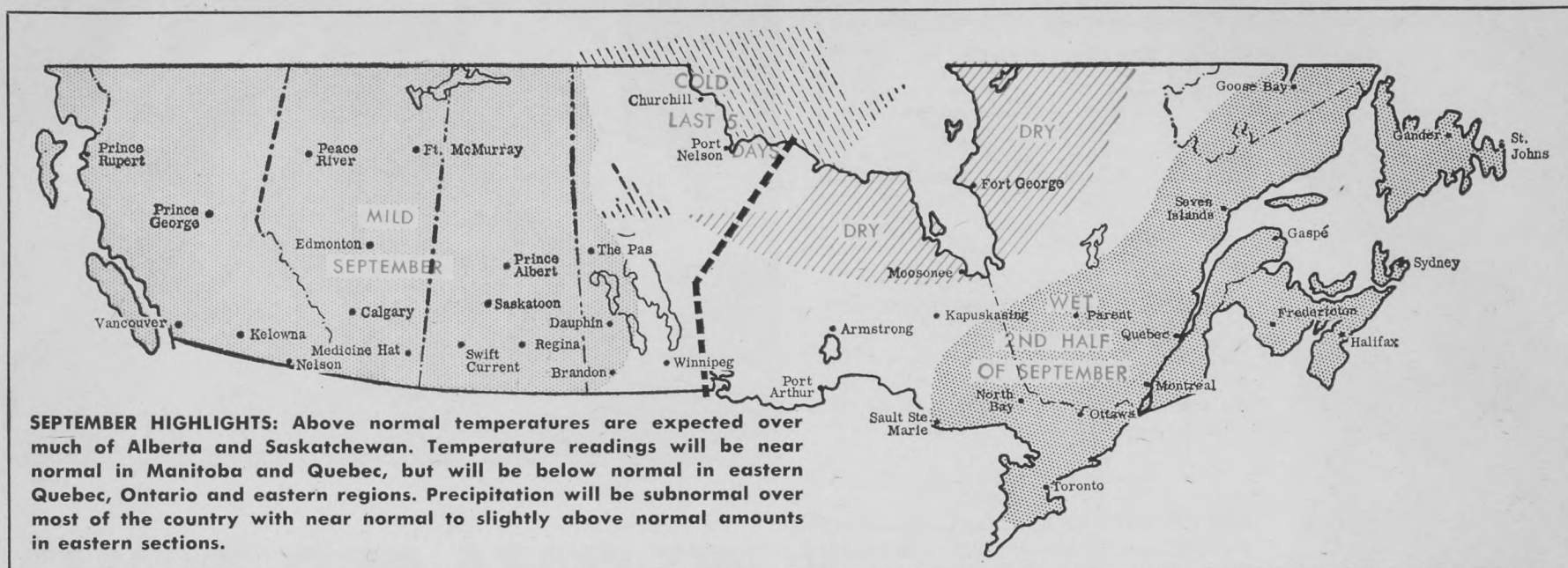
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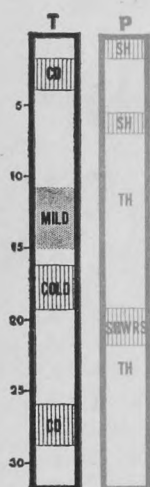
Prepared by IRVING P. KRICK ASSOCIATES



SEPTEMBER 1963

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—Ed.)

Alberta



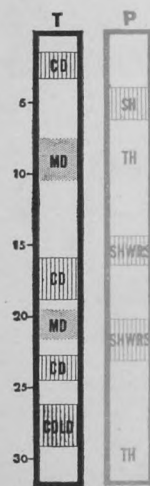
- 1st week 1-7:** Look for some showers around the beginning of the month, followed by cool weather with temperature readings lowering into the 40s. More seasonable temperatures likely the last couple of days.
- 2nd week 8-14:** Generally fair during most of the week, with some threatening conditions around the 11th, otherwise mild. Afternoon temperatures will be generally mild with some locations reporting readings in the 70s.
- 3rd week 15-21:** It will be cooler around the 16th or 17th with near freezing temperatures north of Calgary. Significant precipitation will develop around the 19th and 20th with some chance of light snow in the northern areas.
- 4th week 22-28:** Skies will be partly cloudy and threatening around the 22nd and 23rd. Conditions will improve although cold weather will linger during this week. It will be coldest around the 26th and 27th.
- 5th week 29-30:** Warming conditions are expected with generally fair weather over the entire province.

Saskatchewan



- 1st week 1-7:** Showery during the first couple of days of the week. Temperatures below normal dropping into the 40s. Relatively mild temperature readings likely by the end of the week, rising to the 70s in some parts.
- 2nd week 8-14:** Mild weather will continue around the 9th and 10th with showers increasing by the 11th. Another weather front will move through around the 15th bringing threatening conditions.
- 3rd week 15-21:** Threatening showers around late 14th-15th, colder air will move in causing temperatures to drop to freezing. Warmer temperatures expected around the 20th with the chance of showers developing.
- 4th week 22-28:** Showers will end by the 22nd with generally fair weather predominating during the balance of the week. Colder temperatures can be expected around the 26th and 27th with some freezing.
- 5th week 29-30:** Threatening around the 30th, otherwise seasonable temperatures with little or no precipitation.

Manitoba



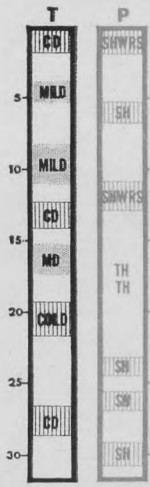
- 1st week 1-7:** Relatively cold temperatures during the first part of the week. Nighttime readings will drop to the 30s resulting in some frost. Expect some showers to develop around the 5th, 6th, and 7th.
- 2nd week 8-14:** A warm week with temperatures in the 60s and 70s. A storm system moving east will bring clouds and light scattered showers around the 9th; otherwise little interruption to harvesting operations indicated.
- 3rd week 15-21:** Wet weather is expected during the week. Showers likely around the 15th-16th and near the 21st. Cooler starting around the 16th and 17th with temperatures rising by the 20th and 21st.
- 4th week 22-28:** There will be some showers around the 22nd. Temperatures will tend to be lower. This will be reinforced by another cold surge near the 27th, resulting in a predominantly cooler week.
- 5th week 29-30:** The last two days will have near seasonal temperatures. A threat of some showers.

Ontario



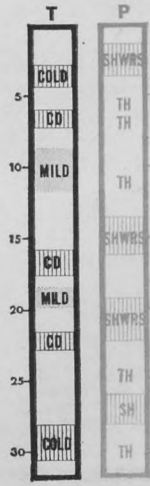
- 1st week 1-7:** Cool weather the first two days of this week. Skies will be threatening around the 2nd with more light rain showers around the 5th and 6th. Skies will improve by the 7th.
- 2nd week 8-14:** Seasonable temperatures expected early in the week, warming by 8th and 9th with temperatures in the 70s. Storminess around 11th, 12th, near 14th. Colder air will follow with freezing at some locations.
- 3rd week 15-21:** Generally cool with considerable cloudiness; rainfall not expected to be heavy. Skies threatening around the 17th-18th and near 20th. Warming around the 15th and 16th but turn colder again by the 18th.
- 4th week 22-28:** Seasonable temperatures at the start with storminess by the 22nd or 23rd. Briefly warmer around the 24th-25th, with additional moisture by the 27th. Look for cold, freezing weather over most of the area.
- 5th week 29-30:** Generally fair weather at the end of the month with slow rising temperatures.

Quebec



- 1st week 1-7:** Cold and showery weather at the beginning of the week. Improving around the 5th with temperatures generally in the 60s. More showers will affect the area around the 6th and 7th.
- 2nd week 8-14:** Warm weather at the start of the week. By the 11th showers and thunderstorm activity can be expected, continuing until around the 13th. Cold air following behind this will lower temperatures.
- 3rd week 15-21:** Generally fair skies during the week. Warm around the 16th and 17th, with increasing cloudiness near the 17th and 18th. Comparatively cool around the 20th and 21st. No significant moisture expected.
- 4th week 22-28:** A trend toward wetter weather will set in around the 23rd, with more showers developing around the 26th. Temperatures will be warming somewhat by mid-week but turning colder by the 27th.
- 5th week 29-30:** Showers the last two days. Temperatures will be mild on the 29th but turning cooler 30th.

Atlantic Provinces



- 1st week 1-7:** Temperatures will average above seasonal at beginning of week. Stormy weather will move in by 2nd followed by colder temperatures around 4th. Threatening with cloud the 6th and 7th. Colder.
- 2nd week 8-14:** Warm weather will prevail during the first 3 or 4 days. Skies will be mostly fair with threatening conditions developing by the 11th and general precipitation spreading over the region by the 14th.
- 3rd week 15-21:** Cloud and rain will extend into the 15th. This will be followed by more cold air with temperatures dropping to the 40s. Moderating by the 19th and 20th. Showers again expected by the 21st.
- 4th week 22-28:** Look for cooler stormy weather through the 23rd with brief improvement around the 24th and 25th. Skies will be threatening around the 25th with rain by the 27th. It will turn colder near the 28th.
- 5th week 29-30:** Weather will be cold. There will be some cloud but no important precipitation.

In Memoriam



The Late DR. H. H. HANNAM, C.B.E.

IT was with deep regret and a profound sense of loss that we received the news of the sudden passing of Dr. H. H. Hannam. Until the time of his death at his farm home near Ottawa on July 12, he had served continuously as President and Managing Director of the Canadian Federation of Agriculture for more than two decades. He was, in a very real sense, Canada's number one farm leader, and the most respected and influential farm spokesman this country has produced.

"Herb" Hannam was born in 1898 and raised on a farm at Swinton Park, Grey County, Ont. His life's work in the farm and co-operative movement, began in 1928, shortly after obtaining a Bachelor of Science degree in Agriculture from the Ontario Agricultural College. His talents for organization work were soon recognized. In 1933, he was appointed secretary of the United Farmers of Ontario, and 3 years later, secretary of the United Farmers Co-operative Company, now UCO. In 1936, he was instrumental in establishing the Rural Co-operator, and became the publication's first editor. When the CFA organizing convention was held in 1935, he participated actively in the deliberations and was chosen to be the organization's vice-president. He continued in this office until his election to the presidency in 1939.

During Dr. Hannam's more than a quarter of a century of stewardship with the Federation, the organization has evolved from a struggling infant to a mature, responsible body, widely representative of the vast majority of farm people in all parts of the nation. It has a clearly established record of achievement in the farm policy field, and an enviable reputation of public service. It has emerged as a body in which farm people can be justly proud, and in which they can continue to work effectively. And while it has taken time and the talents of many people within the Federation to accomplish this, much of the credit for success must go to Dr. Hannam—the man charged with the responsibility of conducting the affairs of the organization for so long.

WE cannot begin to set down all the contributions that the former President of the Federation made. But there are a few which stand out. These will live on as a memorial to his work, and as an inspiration to those that follow in his footsteps.

Perhaps the most important contribution Dr. Hannam made was to create and maintain harmony between and among the member bodies within the Federation structure. There are wide differences of interest and sometimes viewpoints in the farm movement. These differences occur between regions, commodity groups, and between farmers with small and large operations. Dr. Hannam's great strength rested in his ability to help such diverse interest groups find common ground and a basis for agreement, so that they could speak with a united voice on behalf of farm people. Without such unity of purpose, the Federation could not have attained the influence it has enjoyed in the councils of the nation.

Much of the work Dr. Hannam carried out on behalf of the CFA involved submissions, consultations and negotiations with governments, particularly the Federal Government. Politicians and civil servants alike welcomed the delegations he headed, and the courteous and constructive approach which has been characteristic of Federation presentations over the years. Frequently, they have sought the advice Dr. Hannam could give, because they knew his views would reflect a consensus of farm opinion. And while the Federation hasn't always had its way, its leader did much to create trust and confidence in the organization, thus paving the way for a receptive hearing at all times.

On the international scene, Dr. Hannam's services have been much in demand. He was one of the founders of the International Federation of Agricultural Producers, and served for two terms as its President. He was a delegate to the United Nations Food Conference in 1943, which led to the establishment of the Food and Agriculture Organization. He has been an advisor to the Canadian Government delegation at every FAO Conference since that time. Through many years of conscientious effort he has contributed in a significant way to the work of both these international agricultural organizations.

FINALLY, of course, we cannot fail to mention H. H. Hannam's contribution to the establishment of a world food program. We recall that he devoted a major part of his presidential address to the subject in February, 1961, the year in which the Federation celebrated its 25th anniversary. He concluded his remarks on that occasion by stating: "I have said often and I am convinced that a world food program, jointly supported and directed by the community of nations, could well be the next great step forward in human history." Dr. Hannam lived to see such a program launched by the United Nations last year. The fact that the Canadian Government played a major role in setting it up can be attributed, at least in part, to the initiative and determination of the CFA and its leader in advocating this course.

"Herb" Hannam had a broad knowledge and keen understanding of Canadian and world agriculture, and the desires and needs of the people he served. It was because of this, and his sterling qualities of judgment, diplomacy, devotion to duty and trustworthiness, that made him an outstanding leader. Duty frequently called him into the highest councils, but he retained a true sense of humility. In fact, he was never so much at ease, nor happier, than when he was with his fellow farmers at gatherings in his home community.

It is unfortunate that more of our farm people did not have the opportunity to know this great Canadian personally. His responsibilities were onerous and at times most difficult. Through it all he remained a thorough-going gentleman, a wise and respected counsellor and leader. The farm movement could not have bestowed its highest office on a finer man, nor have been better served by anyone. V

Editorial

Sensible Grain Policy

THE Federal Government has made its first significant statements as to where it stands on western grain policy. There is to be no change in the initial Wheat Board prices for wheat, oats and barley for the new crop year. The Government will assist the Wheat Board to maintain and expand export markets. It will also take a positive and leading role in international negotiations designed to stabilize prices and to open markets for Canadian grain. It intends to develop policy which will avoid accumulation of unmanageable surpluses. Finally, it will ask Parliament to enlarge Canada's food aid program.

The particularly noteworthy thing about the Government's position is the sharp contrast it bears to its election platform. The promised two-price system for wheat and a \$2.00 per bushel floor price are conspicuous by their absence. Nor did the Government follow through on its promise to raise the initial prices of oats and barley.

Reasons for not keeping its election promises are readily apparent. First, there was no large body of farm support in Western Canada for the Liberal Party's grain policy proposals. Second, the marketing situation has changed considerably since the Government's pre-election grain policy was drafted. In the third place, we doubt if Mr. Sharp, who is now the responsible minister, ever approved of the two-price system or a relatively high guaranteed floor price for Canadian wheat. With his knowledge of the grain business, he has apparently been able to convince the Government of the weaknesses in these proposals in the more sober atmosphere of the post-election period.

The prospect is for a record or near record wheat crop. If it materializes, supplies of wheat in Canada will be in the neighborhood of one billion bushels, including the carry-over. This amount of wheat would be in excess of two years' domestic and export requirements. With increased supplies at home, and the distinct possibility of significant additions to already heavy supplies in the United States and other exporting countries, it is doubtful if current prices and export levels can be maintained.

Regrettable as it is for producers, the implementation of a \$2.00 floor price for wheat at this time could only worsen the market situation. On one hand, it would act as an incentive to farmers to produce more wheat. As one observer put it: "The measure would, in effect, be an 'open end' one, with no ceiling on production and a virtual invitation for the producer to write his own subsidy figure." On the other hand, a \$2.00 floor would act as a deterrent to adjustments from wheat to forage and coarse grains which can be justified in view of Canada's growing livestock markets.

All things considered, we believe the Government has acted responsibly. There was neither justification nor pressure to change the initial prices. It has issued a timely warning that all the wheat that can be produced cannot, in fact, be sold, notwithstanding the previous Government's declarations to the contrary. Producers will welcome Mr. Sharp's pledge that the Government will not make the Wheat Board operation a political football, and that it intends to expand the use of wheat in its foreign aid program. Finally, a study of existing policies and programs has been initiated by the Government to determine in what way they might be adjusted to achieve a better balance in agricultural production and to avoid burdensome surpluses. This is to the good, especially if the study is a comprehensive one, and the results given wide publicity. It undoubtedly has taken courage to renege on election promises, but it seems to be the only sensible course to follow at this time. V

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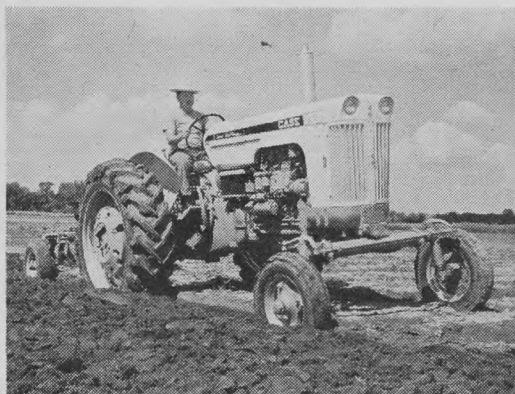
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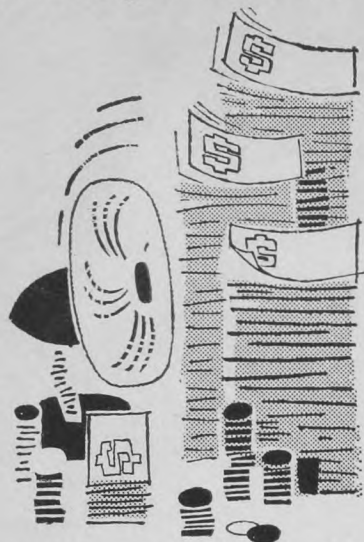
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GUIDE POSTS

UP-TO-DATE
FARM MARKET
FORECASTS

PROSPECTIVE BIN BUSTER WHEAT CROP is bound to lead to some difficulties. Although export markets will likely expand, the increase will be modest and farm held stocks will build up rapidly. Deliveries off farms will be smaller than last season.

HOG NUMBERS at June 1 were a moderate 5 per cent above last year's, with the increase occurring in Eastern Canada. Strong summer markets will continue with Grade A's at Eastern centers about \$29-\$30 and only \$1-\$2 lower in the Prairies. Fall prices will likely adjust down only \$1-\$2 and average about \$28 at Toronto, until Christmas.

BARLEY SUPPLIES will return to levels which are more than sufficient to meet domestic requirements. The world market for feed grains is expected to expand further this season, but Canadian prices will need to be competitive if our share of the market is to increase.

FED CATTLE PRICES will trend steady to lower with Calgary choice steers at \$24-\$25. Feeder placements since April have been moderately larger, and August fed cattle marketings could rise above early summer levels, especially in the Prairies where excellent grazing has prolonged pasture feeding.

OATS SUPPLIES will be plentiful this season, even though acreage is down considerably. Carryover stocks are large and new crop yields should be good.

FARROWINGS this summer will be up 30 per cent from last year--38 per cent in the West and 25 per cent in the East due, in part, to a sharp rise in late spring farrowings. Hog prices after Christmas will be under pressure.

COW SLAUGHTER will rise gradually until November and prices will slip. Plentiful fed beef supplies will dim market outlook for cows. Cannery and cutters could also come under greater pressure from increasing imports of processing beef and mutton.

WORLD FEED GRAIN PRICES could work higher again this year, reflecting the growing demand and prospective further reduction in United States surplus stocks.

RYE PRICES will remain firm this season. Canadian production will likely be similar to last year's, but U.S. crop will be about 25 per cent smaller.

LAMB PRICES are slipping fast as deliveries build up to their September-October peak. Feeder lambs bought at this time look profitable because early winter price recovery should be strong.

What's Happening

FCC LOAN ACTIVITIES RISE, SO DO OPERATING LOSSES

The 1962-63 annual report of the Federal Farm Credit Corporation shows a sharp increase in the number and volume of loans it has made to farmers, but an operating loss of more than \$1 million for the year.

The number of farmers who qualified for loans in the fiscal year ended March 31, 1963, totalled 7,438, up from 5,885 the previous year. The total loans made in 1962-63 amounted to \$90.9 million, as compared with \$68.6 million in 1961-62.

During the fiscal year more than 21,000 farmers are reported to have consulted with the Corporation's 164 Credit Advisors in its 127 field offices across the country. About 46 per cent (9,875) subsequently completed formal loan applications, and another 3,000 indicated a definite interest in securing assistance at a future date. The remainder were divided between those who were interested in securing credit but were ineligible, and those who simply wanted advice and counsel.

The principal factor affecting the Corporation's profit and loss position is the difference between the interest rate on its borrowings from the Minister of Finance, and the interest rate on its loans to farmers. Neither of these rates is controlled by the Corporation. As a result of an inadequate interest margin, the report stated that the operating loss during the year amounted to \$1,080,597, as compared with losses of \$776,117 in 1961-62 and \$202,798 in 1960-61.

Under these conditions, the Corporation's reserves are rapidly diminishing and probably will be depleted by March, 1964, the report indicated. To provide a sound financial structure, FCC required a margin between its lending rate (5 per cent) and its borrowing rate (4.785 per cent in 1962-63) sufficient to pay for administrative costs, a return on capital, and a reserve for losses as contemplated under the Farm Credit Act. The report urged that consideration be given during the current year to ways and means of providing such a margin. ✓

WHEAT BOARD INITIAL PRICES UNCHANGED

Canada's Trade Minister, the Hon. Mitchell Sharp, announced in the House of Commons on July 24 that the Canadian Wheat Board initial prices to producers for western wheat, oats and barley for the 1963-64 crop year will remain at the same levels for specified grades as during the 1962-63 crop year. These initial prices, basis in store at Fort William/Port Arthur, are: \$1.50 per bu. for No. 1 Manitoba Northern; 60 cents per bu. for 2 C.W. Oats; and, 96 cents per bu., for 3 C.W. Six-Row Barley. ✓

GOVERNMENT STATEMENT ON WESTERN GRAIN POLICY

In making the announcement with respect to CWB initial prices for western grains, Trade Minister Sharp

also outlined the new Government's grain policy for the immediate future. Its main elements are these:

- **On the supply side**, the Government believes Canada should avoid the production of unmanageable surpluses, and, through appropriate crop diversification, be in a position to meet changing domestic and foreign demand for wheat, coarse grains and livestock.

"Our production policies," Mr. Sharp stated, "must be designed to achieve these objectives." He reported that the Government has initiated a review of existing policies and programs to determine in what way they might be adjusted to achieve a better balance in agricultural production, and the avoidance of burdensome surpluses. "For example," he said, "the Government considers that we should be in a better position than we are at present to meet the expected increase in demand for livestock and feed grains."

- **On the demand side**, the Government is and will continue to make every effort to help the Canadian Wheat Board increase to the maximum commercial sales in markets throughout the world.

- **Expanded Food Aid**. Finally, the Government intends to ask Parliament to enlarge the food aid program to developing countries.

Apparently this is to involve supplying increasing amounts of wheat or wheat flour to international agencies, including the World Food Program, and to developing countries which are not now commercial markets, or where commercial exports are limited by capacity to pay.

In this regard, Mr. Sharp felt: "Something can be done this year. The intention is, on a progressive basis, to increase the amount of

TURNER NEW B.C. DEPUTY MINISTER OF AGRICULTURE

A. H. (Alex) Turner, of Ottawa, widely known and respected senior civil servant with the Canada Department of Agriculture, has been named Deputy Minister of the British Columbia Department of Agriculture. He succeeds Wm. MacGillivray who retired at the end of June.

Mr. Turner was born on a dairy farm near Carleton Place in eastern Ontario. He holds Commerce and Science degrees from Queen's and Cornell Universities, respectively, having specialized in business management and marketing. During his career, which began with the Economics Division of the Canada Department of Agriculture in 1937, this training has been put to good use.

Among the many important positions he has held are those of Director of Research and Acting Deputy Minister of the Saskatchewan Department of Co-operation; Chief of the Marketing Section, Economics Division, Canada Department of Agriculture; Vice-Chairman, Agricultural Stabilization Board; Member, Farm Credit Corporation; and Director, Economics Division, Canada Department of Agriculture. Since April of this year he has been Director General, Economics, Canada Department of Agriculture.

Alex Turner is perhaps best known for his work with the Agricultural Stabilization Board (and its pre-



A. H. (Alex) TURNER

decessor the Agricultural Prices Support Board, and for his duties as a representative of the Department on numerous inter-departmental and international committees dealing with agricultural trade and economic problems. These latter duties have included extensive travel in Europe in relation to the Common Market, OECD and FAO work. At present he is Chairman of the Intergovernmental Committee of 20 Nations which direct the operations of the World Food Program. ✓

Canadian food aid in appropriate relationship to the total of our assistance activities. It is expected," he continued, "that the total allocation for this purpose might rise to a level of around \$40 million per annum over the next few years."

The Minister emphasized that "safeguards will be introduced to ensure that the provision of additional Canadian wheat and flour does not interfere with normal commercial marketings of Canada and other exporting countries whom we shall be consulting as appropriate." ✓

MANITOBA ACCEPTS BEEF HERDS AS SECURITY FOR LOANS

Manitoba farmers are now able to borrow money from the Manitoba Agricultural Credit Corporation for expansion and improvement of beef cattle herds, using their cattle as the only security.

Amendments to the Agricultural Credit Act, which went into effect on July 1, open the way for qualified applicants to obtain loans up to \$10,000 for the purchase of quality breeding stock or for pasture and hayland improvement, development of water supplies or fence construction. The loans are repayable over a period of up to 10 years at an interest rate of 7 per cent.

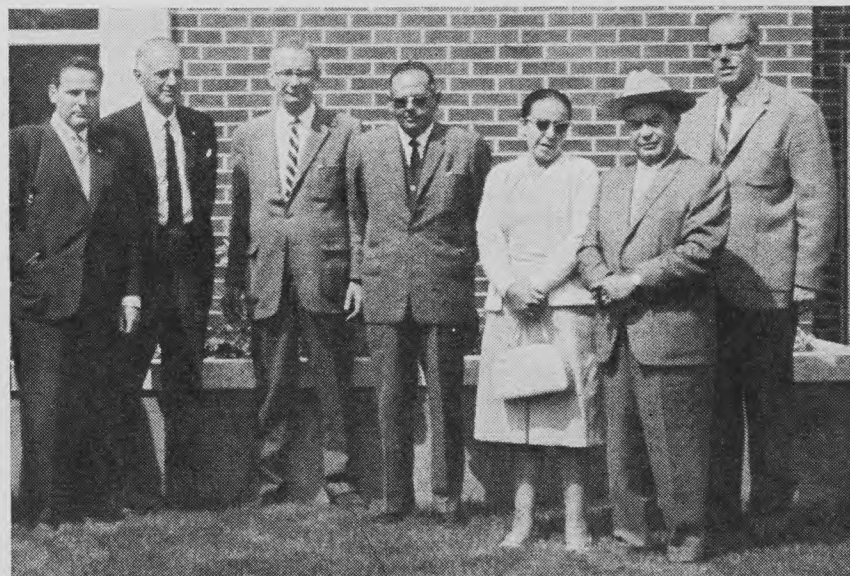
Loans up to 65 per cent of the value of the cattle offered as security can be provided, but the borrower must have a herd of at least 25 cattle of breeding age, including the animals he intends to purchase. An applicant must also have been engaged in farming for 3 of the last 5 years, and must have lived in the province for at least 3 years immediately prior to the date of application. In order to qualify for a loan, the applicant must also present a sound, long range plan for approval, including provisions for adequate feed and water supplies. ✓

SEED GROWERS WANT STANDARDS IMPROVED

The Canadian Seed Growers' Association, at its annual meeting at Ridgetown, Ont., considered and passed the following two resolutions:

1. That a close study of the grade standards under the Canada Seeds Act for pedigreed seed grades be

MEXICAN TRADE MISSION



[Canada Dept. of Agriculture photos

Canada played host recently to a Mexican Livestock Mission. The purpose of the visit was to acquaint Mexican government officials and livestock producers with the full range of quality livestock available for export from Canada. The group is shown here at the Experimental Farm, Lacombe, Alta. (l. to r.) G. Belanger, Canadian Embassy, Mexico City; Lic. Jaime Gallardo; K. L. Melvin, Dept. of Trade and Commerce, Ottawa; Sr. Octavio Ochoa Ochoa, pres., National Livestock Assoc., Mexico; Mrs. Quevedo; Sr. Rodolfo Quevedo, pres., Regional Livestock Union, Chihuahua, Mexico; J. G. Stothart, Supt., Canada Dept. of Agriculture Experimental Farm, Lacombe.

What's Happening

made with a view to upgrading the standards, particularly with regard to purity, i.e. weed seeds, other crop seeds and other varieties.

2. That Registered first generation seed be processed by the grower himself, or by a processor under

growers' control, as it is felt that the growers must assume greater responsibility for their product.

The Association awarded Honorary Life Memberships to Dr. C. H. Goulden and Dr. Thorvaldur Johnsson, both former employees of the

Research Branch of the Canada Dept. of Agriculture, for outstanding service to the CSGA and to Canadian agriculture in general. Gordon South of Whittome, Sask., was elected CSGA president to succeed Garnet Rickard of Bowmanville, Ont. V

BANKERS LOOK AT FARMING

If Prof. A. C. Robertson at the Ontario Agricultural College has his way, bankers will have a better understanding of the credit needs of farmers in the years ahead.

Prof. Robertson has organized a series of four farm tours for bankers over the summer months. Fifty bankers turned out to the first one held at the farm of Jim Drennan of Dunganon.

The bankers traveled over the farm, field by field, to hear Drennan describe his program. This young dairyman, who bought his place 5 years ago, has gradually increased his borrowings to bring his land into heavier production, and to put up buildings required for his expanding herd.

Robertson told the bankers: "The lesson of the past few years is this. It's not impossible for a young farmer to carry a large amount of financing today, and keep up with the payments. In fact, farmers apparently need such financing to keep in step with technological change."

"You bankers," Robertson went on, "can help these young farmers. They require credit, and they also require some assistance in using it wisely." V

FARM CASH INCOME STRONG IN FIRST QUARTER

During the first 3 months of 1963, Canadian farmers received cash income from farming operations estimated at \$657.4 million, according to the Dominion Bureau of Statistics. This is about 10 per cent above the estimate of \$596.1 million for the same months of 1962. This increase is attributed in the main to higher returns from the sale of wheat, coarse grains, potatoes, cattle and calves, and poultry products, and to increased Canadian Wheat Board payments on previous years' grain crops. Small gains were also recorded for rye, fruits, vegetables, tobacco and dairy products.

All provinces shared in the quarter's increase. In percentage terms, the provincial gains amounted to: about 1 per cent in B.C.; just under 4 per cent in N.S.; approximately 7 per cent for Que. and Ont.; nearly 15 per cent for Sask. and Alta.; 20 per cent for Man.; nearly 22 per cent for N.B.; and, just over 26 per cent for P.E.I. V

HAYS WANTS REDRESS OF CANADA-U.S. TRADE BALANCE

Agriculture Minister Harry Hays has urged the American Government to give thought to the problem of Canada's trade deficit with the United States. He said the deficit stands "in the neighborhood of \$1 billion." The Minister was speaking at Waterton - Glacier International Peace Park to the annual meeting

sponsored by Rotary International to re-affirm friendship between the U.S. and Canada.

Remarking that "signs were everywhere" that Canada and the U.S. would likely one day be "partners . . . in some form of economic trade alliance," Mr. Hays pointed out that many intermediate events would have to take place before this would happen, and that the problem of Canada's trade deficit was immediate.

While stressing it is Canada's duty to initiate policies that would help redress the balance of trade, he asked for the "active and informed participation and help of American policy-makers in this endeavor." V

HOG AND BEEF QUALITY IMPROVED

Figures released by the Canada Department of Agriculture in mid-July show that the quality of beef cattle and hogs which came to the market during the first half of 1963 was markedly higher. During the first 6 months of this year, 38.3 per cent of the beef carcasses graded "Choice" compared with 35.1 per cent in the January-June period of 1962. Hog quality improved too. In the first half of this year, 36.4 per cent of the hogs graded "A", while 34.3 per cent graded "A" in the same period a year ago. V

SUNFLOWER SEED SUPPORT

Sunflower seed which is used for crushing will be supported at 4.22 cents per lb. for the 1963 crop, it has been announced by Agriculture Minister Hays. This support price, which is 100 per cent of the average farm price for the past 10 years, applies to Canada No. 1 Grade with 10 per cent moisture (basis delivery at the crusher). The support will be maintained through a deficiency payment program. V

MAMMOTH LAND USE SURVEY NOW UNDERWAY

A nation-wide survey, sponsored jointly by the federal and provincial governments, is underway to determine what Canada has available in the way of land.

The inventory will provide for the first time data on what the country's inhabited land area is now being used for; what it is capable of and what it is best suited for. The undertaking, which is part of the ARDA program, will provide a key to future land use in agriculture and many other fields. First part of the project—the "Soil Capability for Agriculture"—survey is in full swing and is expected to be completed by the fall of 1965. Other surveys showing what soil is capable of supporting trees, wildlife, and recreation are expected to be finished around the same time.

On the announcement of the project, R. C. Hodges, chief of ARDA's Land Use Section, said, "The task of relating economic and social data to land capability . . . are monumental. The ARDA agreements between the federal and provincial governments make it mandatory that a land capability survey be carried out. . . ." V

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Good forage, like this hay, is Ken Wilson's key to cutting beef production costs on his farm.



Haying is summer's big task. Wilson uses a swather-conditioner and gets about 25,000 bales off 140 acres.

This farmer has only 215 acres of land. By working it hard, he handles an 80-cow beef herd, and feeds off 150 market cattle and 700 hogs a year

Beef Cows and a Farm Feedlot

by **DON BARON**
Field Editor

KEN WILSON'S entire 215 tillable acres are seeded down to grass or hay. He doesn't grow a kernel of grain on the place, yet he feeds 150 tons of grain a year to his cattle and hogs. He figures he can buy grain in bulk, mix the rations and feed out the livestock profitably, while relying on the forage crops to help him cut costs low enough to survive in today's competitive feeding business.

An intensive farming program makes this possible — one in which he plans carefully for the full use of his buildings, labor and land. The planning pays off. He has won the county pasture competition a couple of times in recent years. Last year, his steers made remarkable use of that pasture too. They grazed it, and ate grain free choice, and gained 3½ lb. per day each, during a 90-day finishing period.

It was 6 years ago that Wilson and his father, Delbert, sold their dairy farm at Alliston and moved back to the rolling, clay loam land that made up their old home farm at Singhampton, a few miles south of Collingwood, Ontario. Their goal was to set up a feedlot program.

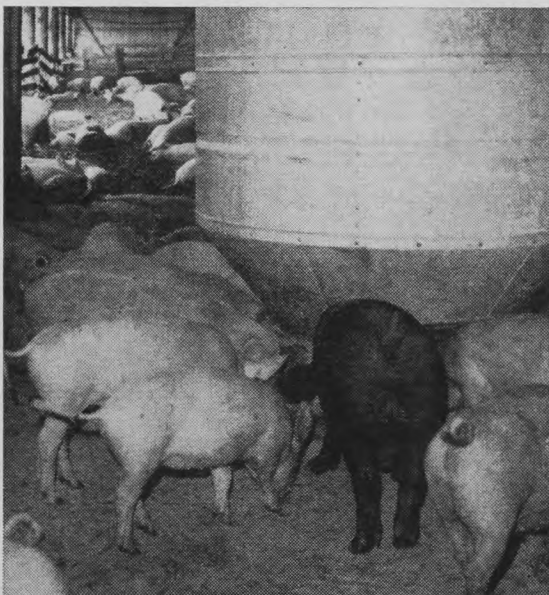
Their first purchase was a group of 80 beef-type heifers to make up a breeding herd. In the interval, the program has taken shape. Calves from the herd are fed off each year, together with another 50 or so bought calves. During the summer, 500 to 700 hogs are fed off as well. For good measure, a 35-ewe sheep flock has been added.

It's an intensive farming program which would seem to leave a beef cow herd out of place. But Wilson is convinced that you don't need large acreages of rough land to handle cows. He makes every acre work hard for him, believing this is the key to producing calves cheaply.

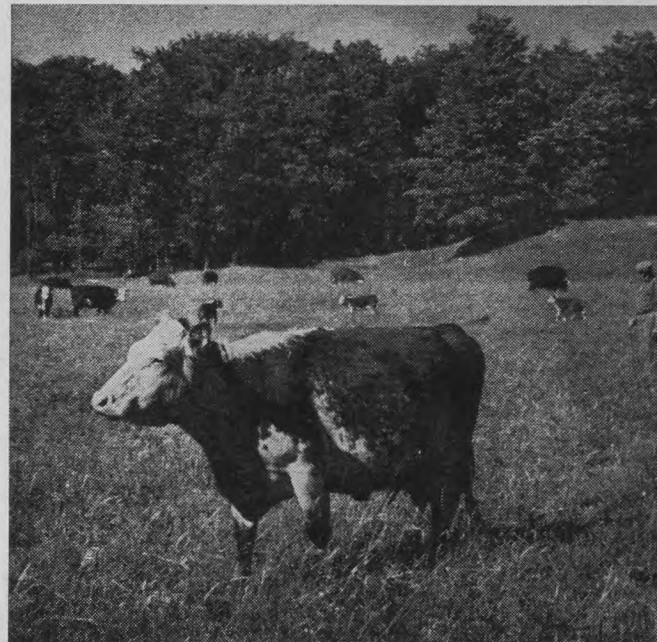
Pasture season begins in the spring when the grass is well grown. In 1962, that was May 11.

In 1963, it was May 28. A 45-acre piece of permanent pasture, heavily manured over the years, and divided into fields so the herd can be rotated, carried the 80 cows and their calves for 2 months this past summer.

"You've got to move them to fresh pasture occasionally," Ken's wife explains. "When they are tired of the piece they are on, those cows come to the gate and roar. If you don't move them, you won't have any peace and quiet around the place." Mrs. Wilson is interested in more than peace and quiet of course. She keeps the books, and figures that the profit picture, too, depends on contented cows.



Empty pole barns, with deep manure pack, make an ideal spot to run hogs in summer. There is no cleaning out, and hogs eat from self-feeders.



The 80-cow Wilson herd, with calves, are grazed rotationally for 2 months on this 40 acres of good pasture. Hereford breeding predominates.

To supplement the permanent pasture, Ken seeded a 33-acre field to perennial ryegrass last spring. This provides lush late-summer and fall grazing. Together with the aftermath from the hay fields, it will carry the cows through until they come into the buildings for the winter — which may be as late as December.

The cows are wintered in a pole barn on good hay. Last year, when hay ran out, Wilson bought grain for them, rather than hay, because it was cheaper.

Calving begins in early May. A few weeks before this, he moves the herd to the calving field near his home buildings. It's a field that is sheltered by hills and cedar trees, providing good protection from late season storms. Hay bales are thrown onto the ground as feed.

How do you appraise the value of those cows? Ken Wilson answers this way: "You can't put a cost price on each calf. Those costs are too closely tied in with the other enterprises on the farm. But I do know that the cows make good use of available pasture land. Since they provide home-grown calves for the feedlot, they reduce my risk of buying calves. Last fall, I didn't buy any extra calves, because prices seemed too high."

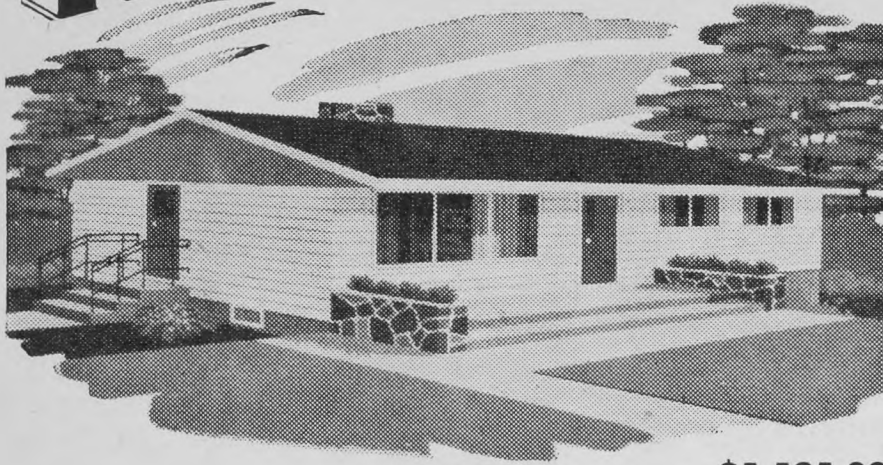
What of the future? "If the cow herd changes in size, it will get bigger, not smaller," Ken predicts. "It pays well on a farm like mine."

THE feedlot is the other side of the Wilson program. It's one in which he can keep a careful record of his costs and returns, and the performance of his cattle. A set of weigh scales in the yard, as well as a good set of chutes and squeezes for handling and loading the cattle, help make this possible.

When the calves are weaned about the first of January each year, the heifers and steer calves are separated. Since cattle make their cheapest

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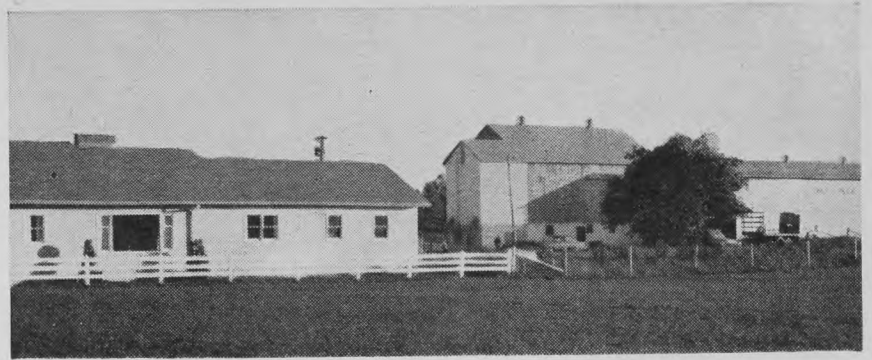
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The attractive Wilson farmstead where three generations of the family live.

gains and have the best conversion efficiency when young, he puts heifers onto full feed right away.

Last winter, his 40 heifers weighed an average of 372 pounds when they were weaned. By June 5, after being on full-feed of grain and supplement and hay for the winter, they averaged 694 pounds. By mid-July, when the oldest were about 14 months old, they were being topped out for market weighing 820 to 875 lb.

Ken doesn't have accurate feed conversion figures on the heifers, but he does on the steers which he handles by a different method. After being weaned, the steers are carried through the winter on good hay alone. Two weeks before going to pasture, they are started on grain. In those 2 weeks, they are brought quickly to full-feed of corn or barley, or even screenings, depending on price, plus protein supplement. Then, the steers go to pasture.

This is the pasture which has enabled Ken to win pasture competitions. It's a 15-acre field, divided into 3 sections for rotational grazing. These are adjacent to the 6-acre calving field which, by this time, is free of the cow herd, and has been equipped with a feed bunk.

The 15 acres provide lush pasture for the steers, and the full-feed of grain rounds out the ration. It results in impressive gains.

Here is the 1962 record: One hundred steers (50 he raised and 50 he bought as calves in the fall) went to pasture on May 11, and gained an average of 328 pounds each during the 3 months there. Feed conversion was little more than 5 pounds of grain and supplement for a pound of gain. Ken explains it this way: "After paying for the bought feed, we had a gain worth \$6,060 that could be attributed to the pasture." No wonder he is a pasture enthusiast.

Here is a detailed breakdown of the performance of those cattle:
May 11—steers went to pasture, weighing 550 lb.

July 12—steers averaged 704 lb.
Sept. 8—steers averaged 878 lb.
Three months average gain—328 lb.
Average gain per day—3.55 lb.
Amount of corn eaten—63 tons.
Cost of corn at \$50 per ton—\$3,150.
Value of gain, 100 head x 328 lb. @ 30¢ per lb. _____ \$9,840
Cost of corn and supplement fed—\$3,150 plus \$630 _____ 3,780
Value of gain, after paying for feed _____ \$6,060

Wilson sums up his beef program this way: "Grow grass and hay intensively. Produce most of the calves you need. Feed them out yourself."

Once this is done, there are still a few resources around the Wilson farm that aren't being fully utilized.

For instance, he can buy feed to advantage, because he deals directly with grain brokers, and has his own truck to haul feed grain from the Collingwood elevators nearby. He built a grain elevator and feed mill on his farm this year too, so he can grind his own rations. One hired man is kept full time, and his father does light work around the place.

To keep these resources working, Wilson adds another big enterprise in the summer. He feeds out hogs. Once the cattle go out to pasture, two pole barns, each with a deep manure pack inside, are left empty. They provide good shelter. And running on the manure pack, the hogs remain clean, without any cleaning out. Ken puts self-feeders into these barns. He buys 500 to 700 hogs and feeds them through the summer.

Those hogs round out the business side of this intensive farm program.

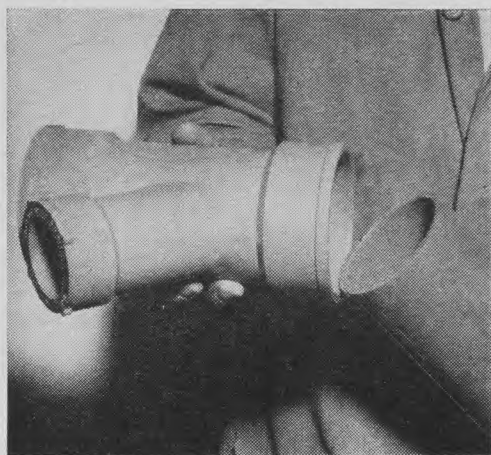
But there is another side to the Wilson farm too—a family side, and a fun side. For instance, there's a new spring-fed farm pond, which was stocked with 5,000 fingerling trout this year. Next year, there will be good fishing. For the two boys who make up the third generation of Wilsons on the farm today, it's an omen that promises well for the future.



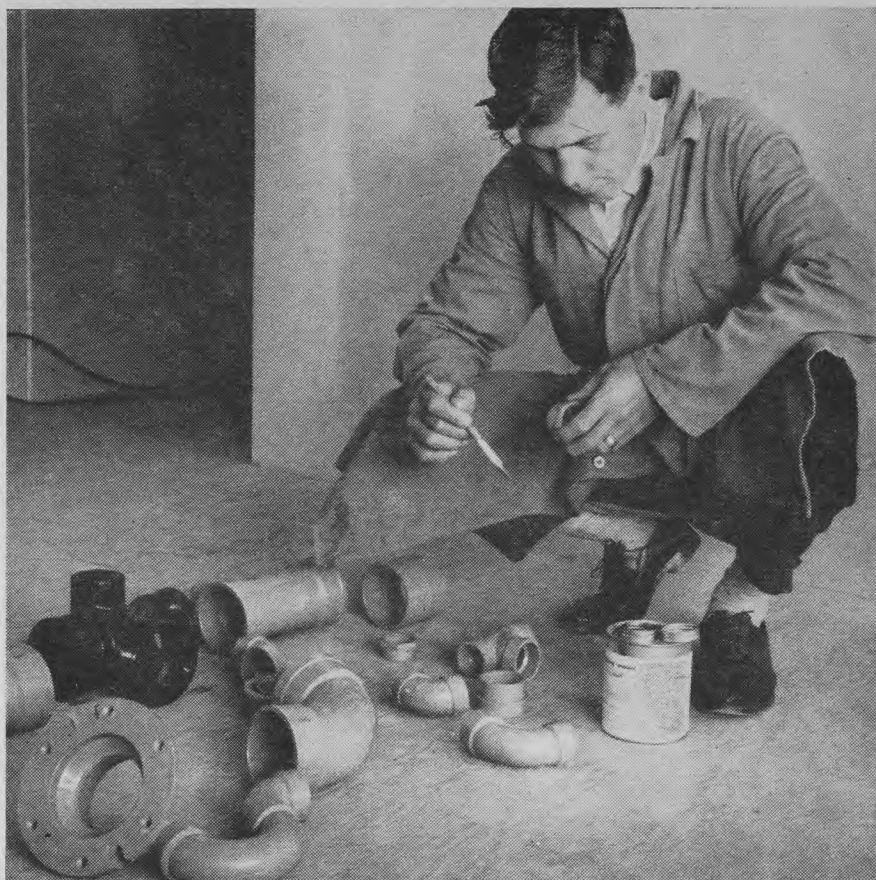
Heifers are grain fed from weaning. These were marketed at about 830 pounds.



PVC (plastic) pipe can be cut with a hand-saw. The pipe shown here is three inches in diameter.



This shows the smooth inner surface of the pipe and Y joint about to be bonded together by cement.



Solvent cement is painted on the pieces to be joined. The advent of this type of bonding has done away with threading the joints and pipe ends.

Plastics in Plumbing

by **JIM BARNETT**
Field Editor

FOR years prairie farm engineers have wrestled with the problem of developing a satisfactory sewage disposal system for farm homes. Now the Family Farm Improvement Branch of the Saskatchewan Department of Agriculture thinks it may have the answer. It is plastic plumbing.

The underlying problem of adequate farm sewage systems on the prairies up until now has been water—or the lack of it. For as long as there was an adequate water supply on a farm the popular septic tank installation worked well. But where there has been a restricted use of water, corrosive gases have been known to build up in septic tanks to the extent that copper piping has had to be replaced within 6 months.

Also, according to Wm. A. Milligan, chief provincial plumbing inspector for the Alberta Department of Health, "In parts of this country where well water has a high sulphate content, copper pipe corrodes very quickly and soon has to be replaced. Cast iron pipes have stood the test of time in both water and sewage systems. Their only drawback has been the high cost of installation."

In Saskatchewan a pilot project, under the direction of Walter Nemanishen, research engineer with the FFIB, is underway to determine the value of plastic pipe as a carrier of household waste and for venting.

The branch has already successfully used polyethylene flexible plastic pipe. Nearly 4 million feet of it being used in the past 3 years to carry water and sewage in *farmyard* installations. The aim now is to get plastic accepted as a material for use *inside* the farm home.

THE material under test is a semi-rigid pipe made from polyvinyl chloride resins and known as PVC. To date three test installations have been made. One is in the new home of Elmer Sloan, at Richardson, another is in the older home of Raymond Duncan at Broderick. The third is in the comparatively new home of Frank Odermatt

at Beechy. This latter installation is expected to subject PVC to the "acid test," since the original plumbing failed after 2 years because of highly corrosive conditions.

In the installations done so far, Nemanishen says the pipe is a "sheer joy to handle." A man can pick up and carry a bundle of 2-inch, 20-foot lengths of the stuff that would normally require a crane if it were metal. It can be cut with an ordinary handsaw. Joints are "solvent welded" with solvent cement which is painted on the areas to be joined. These are then interlocked and have proven satisfactory in tests so far.

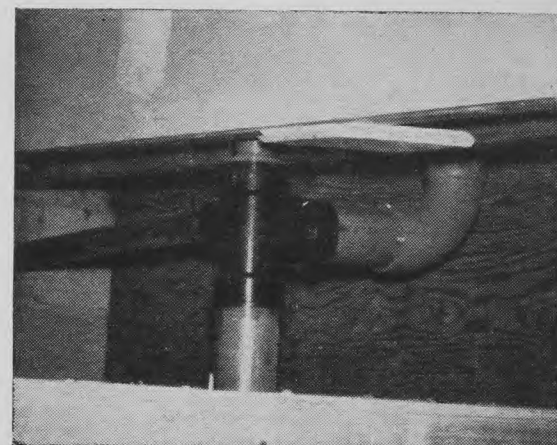
Mr. Nemanishen lists the advantages of PVC like this: It is lightweight — being one-fifth to one-eighth the weight of metal pipe, it is non-wettable, does not support combustion, will not spark and is resistant to damage from frost or water frozen inside; it has a smooth interior and offers the minimum of friction to flowing material; it resists corrosion; it doesn't conduct electricity.

ON the other side of the ledger it could be said to have these drawbacks. Enterprising children could saw the installation apart just as easily as dad sawed it to put it together. If it freezes you couldn't put a blow torch on it. (It is only recommended to carry fluids of up to 165-170 degrees in temperature.) You couldn't use the electric method of thawing — it is a non-conductor. Unlike copper pipe, you can't bend it. This means that when being installed it has to be measured exactly and joints welded to it.

While the use of plastic in rural plumbing is still in the experimental stage, there is no doubt in the minds of those concerned that it is just a matter of time before it will be generally accepted.

Five similar test projects are currently under study in Alberta.

Alberta's Mr. Milligan has this to say: "I think that within a very few years the plumbing industry will be using plastic materials completely.



Plastic pipe being used for inside the toilet bowl cleanout installation in Saskatchewan test home.

They are cheaper to make and install and they should give a lifetime of service. I'd say within 5 years smaller plumbing installations will be all plastic."

He says he isn't completely sold on the quality of present-day plastics. "For one thing they can't stand hot water. And they vary quite a bit. In solvent welds, a solvent used on one type of plastic can't be used on another . . . I feel that present regulations governing plastic pipe quality aren't stiff enough. The Canadian Standards Association is now revising these regulations."

Meanwhile the acting director of the sanitation division, Saskatchewan Department of Health, Murray Prescott says proposed changes in the Health Department code which would allow the use of plastics in plumbing are under consideration at the present time. "It has got to come. It's just a matter of time," he said.

We let Walter Nemanishen, the man responsible for pushing ahead with the Saskatchewan project have the last word: "This type of pipe must do the job better, and be easier and cheaper to install. The farmer must be able, if he wishes, to do the job himself or the Branch isn't interested. We are testing now to see if PVC meets these requirements." There is every indication it will. ✓



George Robinson has had fine success with semi-dwarf trees at Penticton. Here he stands beside one that produces three different varieties of apples.

Made-to-Measure Fruit Trees

While dwarf and semi-dwarf fruit trees require above-average skill in pruning and training, many growers in the Okanagan have turned to them as replacement stock in their orchards

by **CLIFF FAULKNER**

Field Editor

THE big frost of 1955 did more than kill off a lot of fruit trees in B.C.'s Okanagan Valley. It changed the nature of the apple orchards. Many growers, seeking to recover their losses as quickly as possible, replaced dead trees with dwarf and semi-dwarf varieties. These trees come into production sooner. They also reduce picking and maintenance costs. In fact, you can even change varieties to keep abreast of market demands by merely grafting different varieties to your rootstocks.

Most of the growers appear to be going in for the semi-dwarfs. But the new trees are bringing a different kind of problem. Because they grow rapidly, they require above-average skill in pruning and training. If semi-dwarfs aren't shaped properly, the weight of the growing apples can turn them into a solid mat of leaves and fruit, or cause lower branches to sag badly. This cancels out one of the semi-dwarf's main advantages, namely, keeping the apples out in the open where the sun can get at them.

One man who has successfully handled his semi-dwarfs is veteran fruit grower George Robinson of Penticton. George, who has been an Okanagan grower for 40 years, originally came from Calgary, Alta. Since he first pioneered with East Malling rootstocks in 1947, he has developed his pruning, training and grafting skills to a point where he can make a tree do everything but sit up and beg for a glass of water.

Like an engineer tackling a bridge job, George "builds" his trees with an eye to the stress they'll have to carry when fully loaded. First, he looks to his footings, in this case the roots. To ensure a strong root system, he buds higher on the Malling rootstock than most growers. He grafts a shoot of the variety he wishes to grow about 10 inches up the rootstock. This enables him to put the main root down 6 to 8 inches

into the ground where it can send out a network of branch roots.

"One thing you have to watch is to keep the union (join) 2 or 3 inches above the ground," he warned.

"If you don't, the variety you're grafting might shoot out its own roots and the tree will lose its character."

When the tree begins to grow, George turns his attention to the superstructure. The idea here is to build a strong framework into each tree so it'll bear its load without sagging. He doesn't like to see a tree that has to be propped up. This is accomplished by pruning the new tree quite heavily. He heads back the main limbs and often eliminates

lower limbs. "Of course, you'll find it cuts production at first," said George, "but your trees will come on much better later."

AND he stands by his method in spite of the fact an expert from England's East Malling station advocated light pruning for heavier production. By pruning heavily, you encourage development of spur wood inside the tree so the whole tree bears fruit, not just the outer branches.

"Light pruning may be all right under English conditions," he explained. "But growth is more vigorous here and our market demands more color in the fruit."

There's too much emphasis on

color these days, George believes. Because of this, a grower is liable to leave his fruit on the tree until it's overmature in an attempt to improve the color. But the housewife buys on eye appeal and the market will pay more for it.

One big advantage to growing on rootstocks is that you can change your varieties to suit market demands. If you have a variety that's not selling too well, you can change it by "dehorning" your trees. This involves cutting the trees back and grafting small pieces of wood, called "scions," of the new variety into the ends of each cut branch. The scion is inserted into the bark and sealed with grafting wax to keep out the air.

"Scions shouldn't be put in when the sap is running," said George.

It is even possible to graft several varieties on the same rootstock. You can have everything from an early apple to a late-keeping apple so as to give continuous picking throughout the season. One tree in the Robinson orchard has three varieties on it. This is just kept for home use. Multiple-variety trees aren't very practical for commercial picking.

Strength can be built into a tree by grafting as well as by skilled pruning. In the case of East Malling No. 9 rootstocks, which need to be supported, George grafts them to an Antonovka root. When the apple variety is added, this makes a "3-piece" apple. The Antonovka root comes from Russia. It gives the tree hardiness and good anchorage. A piece of E.M. No. 9 root about 6 inches long is inserted into the Antonovka root. The E.M. No. 9 insert acts as a check to keep tree size down. This combination produces a well-anchored semi-dwarf tree.

George also uses his grafting knowledge to repair injured trees. If a tree has been split by frost or girdled by mice, he "straddles" the injury by grafting a young seedling from good bark to good bark. This process is called "inarching."



This old tree, which was planted in 1935, was split at the base by frost in 1955. To "straddle" the injury, George grafted a piece of transparent trunk (center) and two seedlings (each side). Process is called "inarching."



Base of a three-way tree. A piece of E.M. No. 9 root has been grafted into Antonovka root. A marketable variety is then grown on this combination.

*A farm boy by birth,
Alvin Gain found
renewed hope in a course
which can help stem
the tide of unemployment*

by **DON BARON**
Field Editor

"The seedling acts as a tube to keep the sap flowing," he explained.

An older tree can also be made to carry its load better by entwining some of the branches so they grow together. But a grower shouldn't try to rejuvenate old trees by grafting. Old type, full-sized trees are grown from a seedling root—that is, from a planted seedling. If you grafted a new variety to this it would take years to get the trees producing.

"Like putting a new engine in an old car body," George pointed out. "You'd still have an old tree and your fruit would be sky high. Fruit that's away up in the air costs more money to pick."

Semi-dwarfs can be picked from a 6-foot ladder, which reduces the time and labor involved. Because you can carry more trees per acre, total production remains about the same. George Robinson's plantings are 30 feet by 30 feet with one tree in the middle. He gets 12 to 14 boxes of apples per tree from semi-dwarfs 14 to 16 years old. Fruit size and color are very good because the ripening apples aren't shaded by excess growth.

Properly handled, these little trees can prove to be one answer to the apple grower's rising production costs. V



Here is a close-up of the same tree shown left. Some of the branches are entwined so that split at the base will hold when tree is fruit laden.

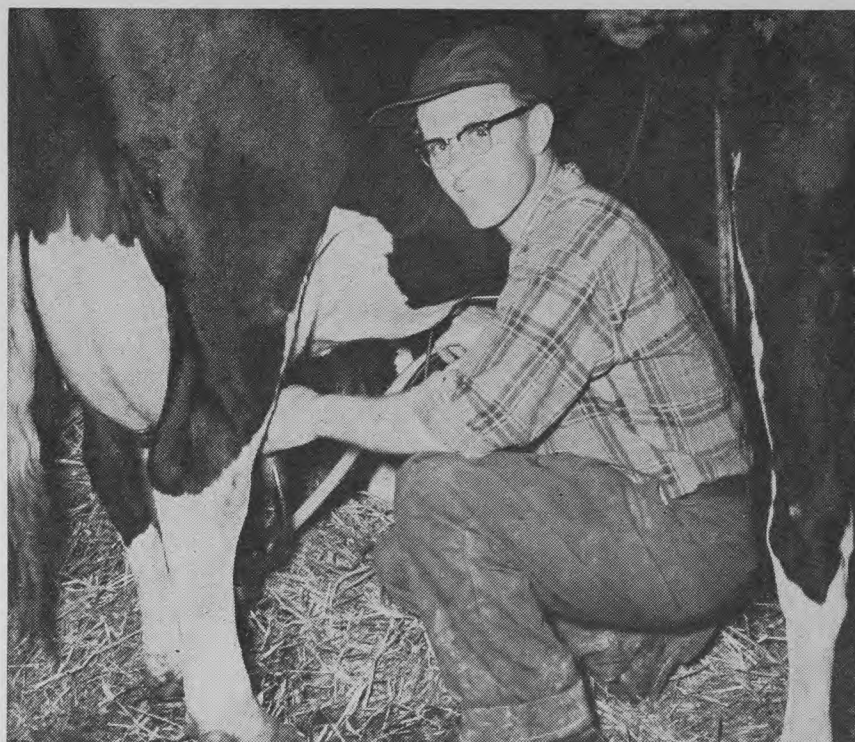
MOST farm communities in recent years have watched too many of their young people go through an experience similar to that of 26-year-old Alvin Gain. Brought up on a farm that didn't survive the past few years of change, young Gain left home. Lacking special training for any skilled job, he went into construction work. His job lasted for 5 years, but last fall, he was laid off. He faced a dreary winter of unemployment, or worse still, a lifetime of intermittent work and lay-offs.

From this point on, the story of Alvin Gain is different, because last fall, he heard of a new course in farming being offered through the Federal - Provincial Training Program for Unemployed Workers.

He went to Cornwall, and along with a group of other unemployed men with farm backgrounds, took an 11-week course. He is well settled in a new job now. According to his new employer, Lloyd McRae, one of eastern Ontario's biggest farmers, he has the makings of a top notch herdsman. Gain himself is just as enthusiastic. He figures his winter's training has led him into a lifetime career.

McRae didn't hire Gain sight unseen, either. It was McRae who was instructor in this new course. "I only had to tell Alvin something once," McRae explained. "He was quiet, serious, and keen to learn."

It was former school teacher T. H. Phelps, co-ordinator of the New Adult Vocational Training Center at Cornwall, who was the key man in getting the course started. His center is operated by the Ontario Department of Education under "Program 5" for educating and training unemployed people. It is financed by joint federal-provincial grants. People accepted for its courses can continue to receive their unemployment insurance payments, or if these are



Alvin Gain took the 11-week course last winter. He is now McRae's herdsman. [Guide photos]

Farm Training for the Unemployed



Dairy farmer Lloyd McRae instructed the class and then hired Alvin Gain.

exhausted, can qualify for training allowances. A wide variety of training courses are being given at the center, but since Cornwall is in a farming area, Phelps decided there must be room for a course in farming too. In McRae, he found the right instructor.

McRAE'S son Ron can look after the 80-cow dairy herd at home now, so McRae agreed to instruct the class. A course outline was drawn up (it was called "The Mechanics of Farming"), and after interviews with unemployed people, Phelps and McRae selected a group of people who had some farm background, and who seemed interested enough to benefit from it.

He gave them an intensive practical course, discussing the important things he had learned himself as a farmer. He started right at the be-

ginning, outlining how land must be drained, maybe even tile drained before it can grow crops well. He explained the place of fertilizer in growing crops, and was surprised to find that although every man had a farm background, some didn't know what the formula on the fertilizer bag meant. He explained the principles of feeding cows. In fact, he went into such subjects as farm safety, building materials and construction, vacuum and water pumps, gas and electric welding, land improvement, crop rotations, tractor operation and maintenance, milking machines, electric motors, welding, soldering and chain saws.

Local agricultural representatives helped by giving some of the lectures. Farm machinery companies made equipment available to work with. The men worked in the shop at the Center. McRae even took the group on field trips to local farms.

Not every member completed the course, but ten of them did. Some, like Gain, have found good jobs on farms now that they are better qualified. One man took over a farm and set up a swine enterprise that he planned with McRae's help. A couple of the men went back to take another try at farming for themselves, hopeful that the additional training will make the difference for them.

Co-ordinator Phelps hopes to see the new course continued and expanded to extend through the entire winter. Last winter's experience convinced him that training in modern farming can be useful to men who want to get started out on the right foot in a career associated with the farm industry. V



[Guide photos

Sometimes interesting effects can be got by shooting into the sun. In this winter scene a polarizing filter cuts down the glare.

Painless Pictures

by PETE WILLIAMS

Some simple techniques which may help improve your photography



Step up your speed for action pictures or the action will be blurred as in this case. The camera setting used here was f16 at 1/100 second. It would've been better at f11 at 1/200.

Speeding traffic was caught here by stepping up shutter speed setting to 1/400 second. Building shadows can be hard to deal with but sometimes can be overcome with use of a flash.



DO friends and relatives like to drop in on you for extended visits? If so, take my advice and become a camera fiend. Nothing will chase guests away quicker than the ordeal of having to look at amateur pictures, especially vacation shots. Statistics show that the presence of a humble album of family vacation snaps in a home can cut week end guest expectancy by as much as 30 to 40 per cent. A few careless reels of vacation movie film can reduce these household pests by a whopping 70 to 80 per cent.

A movie camera is the private citizen's answer to Togetherness. You can even buy one at your local gas station. Any day now Mr. Douglas will get up in Parliament and protest the spread of the movie camera "Club."

Some people claim the camera doesn't lie. As a matter of fact, no invention of mankind is a bigger liar than the camera, except maybe the bathroom scales. With a little diabolical skill, however, you can make this glassy-eyed, conniving little monster lie to your advantage. Real estate agents and fishermen swear by it.

The first thing you have to decide is the kind of camera to buy. I am going to deal only with still cameras for taking black-and-white or color photographs. People who buy movie cameras are sick, sick. I speak from first-hand knowledge because I bought one. There are hundreds of dollars worth of tarnished celluloid stored in little round cans in my basement which nobody wants to see.

If you want a camera that'll allow you to use a broad range of special equipment (such as wide-angle or telephoto lenses) without you having to mortgage your soul to get it, you should buy a 35 mm. job. A 35 mm. camera will also give you 20 pictures per roll instead of 8 or 12. On the other hand, if you intend to take color pictures for publication you'd better get a bigger size. Most publications won't accept color transparencies less than 2 1/4 x 2 1/4 inches. In fact, most of 'em prefer a 4 x 5 inch, or even larger.

There are more camera makes and types than prairie grasshoppers. Any good camera dealer can help you here, so hop down to the store and see one. The Japanese are turning out some quality work now, priced well below makes from other countries. For self-confessed idiots there are completely automatic cameras with built-in adjustments. All you have to do is point it and snap the shutter. I find mine very useful.

It will pay you to get a camera with a fairly fast lens, say an f4.5 opening or better. The smaller the "f" number the faster the lens. Most cheap box cameras have an f11 to f16 lens, and a fixed shutter speed of about 1/30th of a second. There are "souped up" box camera models these

days which are much better. Another mark of a good camera is a wide range of shutter speeds. You can get just about any picture you want if you have an f3.5 lens and shutter speed range of 1 second to 1/500th of a second. If you keep getting bad pictures with equipment like this, take up some other hobby. Your genius lies elsewhere.

Cheap lenses miss so much detail the result is more like a cartoon than a picture. Whenever anyone hands me a stack of pictures with the proud announcement, "And I took 'em all with a \$6.95 camera!" I'm almost afraid to look for fear I'll betray my horror. They're generally as fuzzy as an Angora sweater. If you blew them up they'd have as much grain as the Canadian Wheat Board. They'd look like a polka-dot table cloth. No matter what claims your gas station man makes, you can't get good pictures with a \$6.95 camera!

MOST cameras take better pictures if you remember to put film in them. Here again, you have a wide choice of makes and types to choose from. You can buy roll film, film packs and cut sheet film. Roll film is the type most of us buy. It can be found in almost any drug store. Any druggist who doesn't sell roll film, rubber heels and wheelbarrows is a disgrace to his profession.

All film types carry a number which shows the sensitivity or "speed" of the film. The higher the number, the faster the film. A fast film means you can take pictures when less light is available. Some films today are so fast you could snap a black bear in a cave at midnight. But I wouldn't advise anybody to try this. You might fumble and drop your camera. This film speed number is what you'll have to set on your light meter so you can find out what time and "f" stop to put on your camera. That's the light meter you had to buy because you were too proud to admit you should be using a fully automatic camera.

For general outdoor use, or for well-lighted indoor subjects, any brand name medium-speed, fine-grain panchromatic film will do the trick. A medium-speed film will have a speed between 80 and 100. Generally speaking, the lower the film speed the finer the grain, and vice versa, although this can vary a little with the make of film. All firms strive for a film that'll give increased speed with reduced graininess. You can also cut graininess by having your pictures developed by a slower process. Just ask for "fine grain developing." You won't get it, but it will make you feel better.

ANOTHER problem with adjustable cameras is deciding what camera settings to use for each picture. Your light meter always offers a good



Swiftly moving player in center foreground is blurred. Aperture should have been widened and shutter speed stepped up to f8 at 1/400 second.

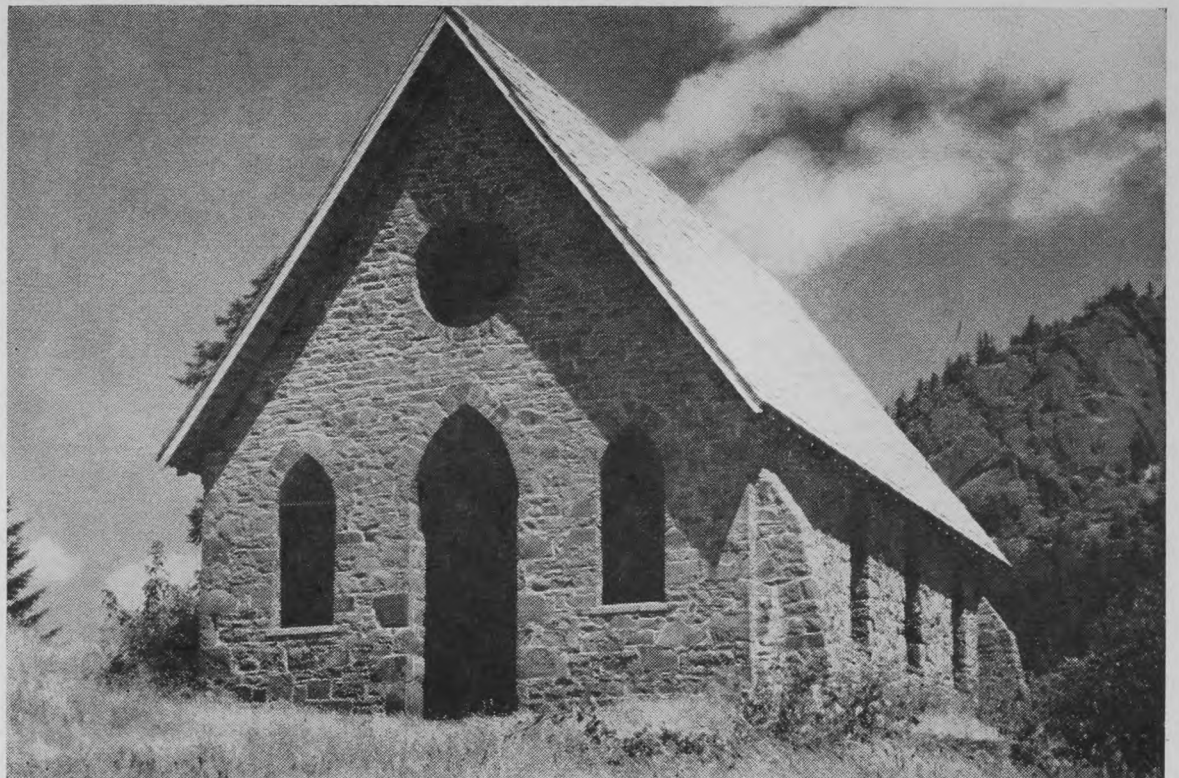
variety to choose from. It won't just read "f22 at 1/50th of a second." All along the dial will be other suggested combinations, possibly right down to f3.5 at 1/500th of a second. If you hold your temper and give these numbers a second look you'll see a pattern emerging. As the "f" number gets smaller so does the exposure time. This is because at f3.5 your lens is wide open. The hole's so big you need only a tiny fraction of a second exposure to get the picture. On the other hand, at f22 the aperture is so small you've got to have 10 times the light to expose the film properly.

What combination you choose will depend on the subject you're taking. A piece of *fast* action (like a man flicking a blonde hair off his shoulder before his dark-haired wife sees it) would probably need f3.5 at 1/500th. For a still shot, such as scenery, or your son doing his Saturday chores, set the camera at f22 at 1/50th, or some combination between the two. If you're worried about what setting to use for an indoor flash picture, f16 at 1/50th will do the job in most cases. In a well-lit room you can get a softer picture by bouncing your flash off the ceiling instead of pointing it right at your subject.

Your pictures aren't going to be up to much if they aren't in focus. On the reflex type of camera you just have to peer down into the viewfinder and twirl the knob until the scene stands out in sharp detail. Some other types have attached rangefinders. You squint into these and turn a little knob until two dots come together. These are designed to make you cross-eyed, or to encourage glaucoma.

There's a little joker in focusing called the "depth of field." This in turn ties in with choosing the right camera setting for the subject you're taking. The "depth of field" is the distances between which a picture is in focus. A wide open lens has a very short depth of field. You can use this to good advantage when you want to focus on a single object close by and show a blurred image as a background. For a scenic shot, where you want everything in focus from a bed of flowers in the foreground to a distant range of mountains, choose the smallest lens opening on your camera.

In black-and-white photography, colors appear only as a variety of grays. To show these different shades clearly in your picture you'll need a correction filter. For instance, a scenic shot with lots of blue sky and water needs an orange or yellow filter to hold back the blue and give other colors a chance to register. Unfiltered skies are too light and don't show the clouds to good advantage. The proper filter will give your picture contrast. You choose the proper one by simply looking



For often photographed historical sites, take shots from odd angles. A filter was used for cloud detail.

through the filter at the subject you want to photograph. If one color looks darker than another through the filter, you can be sure it'll turn out darker in the print.

You can compose your pictures so they're pleasing to the eye, or so they give a certain impression. Some people have a natural gift for this, but others have to learn it. A reflex type of camera is a big help in composing because it gives you a full-size view of the picture-to-be before you click the shutter.

One way to set the picture off is to provide a natural frame for it. There are many ways you can do this. You can put in all, or part of an arch or window. If the subject is movable, you can place he, she or it, near a window. A distant scene looks much better if there are trees or branches in the foreground to frame it. So does any scene for that matter.

LINES can make or break your scene. And I don't mean clothes lines, power lines and phone lines, horrible as they are in any picture. If you have a road or fence line across the middle of your shot the viewer's eye will automatically divide it in two as surely as though you clipped it with scissors. But a single figure topping a horizon line gives a sense of drama. Diagonal

lines suggest motion, while two intersecting lines have a look of action. However, too many intersecting lines create confusion—like a 5-point traffic intersection during the rush hour. With curved lines you can't go wrong. At least not in photography. They create a soft, graceful picture.

Here are a few extra tips that might come in handy: (1) When you're taking pictures of kids you have to think *small*. Hold your camera down at their own level. (2) If you're the type who forgets what kind of film you have in your camera, put some adhesive or masking tape on the back and jot it down. (3) Don't chop off heads and feet. This might be a good idea with some people but it doesn't make for good pictures. (4) When you're taking people, don't have them pose stiffly. Have them doing something which absorbs their whole attention such as attacking each other with clubs. If a man and wife are involved they'll probably pay you handsomely later not to show the picture. (5) Choose a single point of interest for your shot and eliminate everything that doesn't add to it, like husbands or boy friends.

A lot of outdoor types head for open country with their guns loaded and their camera empty. If you reverse this procedure you'll stand a better chance of getting good pictures. You might even live longer. v



This picture has good balance, but is out of focus. Interesting cloud effect was lost not using filter.

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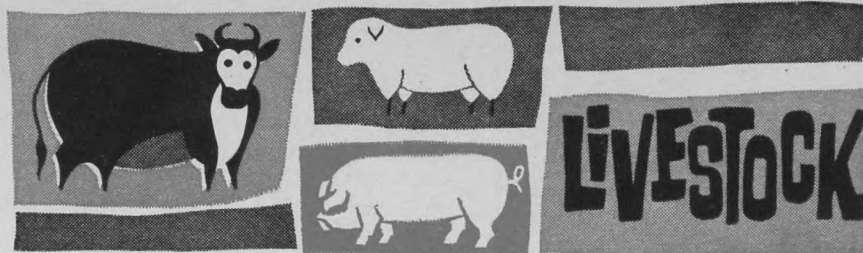
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Flockowners Should Plan Now

THE size of next year's lamb crop will depend largely upon the care given ewes and rams during the breeding season, says Dr. S. B. Slen, Head of the Animal Science Section, Research Station, Lethbridge.

If ewes are thin at weaning time they should be given extra feed, either in the form of good pasture or grain to bring them into condition. Dr. Slen points out thin ewes may not conceive at the first mating and often only have one lamb if they do.

He says experiments indicate that "flushing" (the term given the feeding practice aimed at having ewes put on weight just before and during the breeding season) is a good practice when ewes are thin but that extra feed isn't necessary when they are in good breeding condition.

Rape, fall rye or oats sown for fall pasture are useful for bringing ewes into good breeding condition. They should be kept in this condition throughout the breeding season.

Rams also need additional care and feed for best performance. About a month before setting them out with the ewes they should — depending on their condition — be fed ½ to 1 lb. of grain daily. During the

breeding season they should get at least 1 lb. of grain in addition to plenty of good hay.

Before the season starts their feet should be trimmed and any excess wool on the belly, especially around the sheath, should be removed.

Once the season is underway a close check should be kept on individual rams to make sure they are breeding. Occasionally a ram will refuse to breed and should be replaced.

Rams shouldn't be left with the ewes continually, says Slen, but should be rested periodically and given additional feed. Some range flockowners turn out half the rams each day or pen all rams in the morning and turn them out to the ewes in the afternoon. Some rotate the rams once a week.

Dr. Slen suggests one mature ram is sufficient for mating 30 to 40 ewes if they are more or less confined. On the open range not more than 30 ewes should be given to each ram. Under a pen mating system one active ram can handle 50 ewes provided he is not left with them continually. A ram lamb shouldn't be given more than 25 ewes his first year, he said.

Zinc May Hold Key to Breeding

A ZINC supplement for pregnant sows might be a good idea, according to recent research by University of Wisconsin scientists.

H. F. Roberts, R. H. Grummer, and W. G. Hoekstra last year found definite benefits from zinc supplementation for gilts on a high-calcium ration. This type of ration had aggravated zinc deficiencies for growing pigs in previous research.

The zinc-supplemented gilts averaged two more pigs than gilts which didn't get supplement, and the pigs were about a half pound heavier on the average. More than half the pigs from the unsupplemented gilts were born dead, compared to only 7 per cent for the supplemented gilts. Some pigs died shortly after birth and in both groups there were some accidental deaths.

This left average litter sizes 24 hours after birth at 7 pigs per gilt in the zinc-fed group compared to less than 3 pigs per gilt in the unsupplemented group.

At 9 weeks old, pigs from both groups weighed about the same. However, there was less competition for the sow's milk in the unsupplemented group. Nearly half the

pigs from unsupplemented sows had parakeratosis (a skin disease of growing pigs) at weaning time; none of the pigs from supplemented sows showed signs of the disease.

This was a follow-up of research using zinc supplement to prevent parakeratosis. Since mature pigs don't have this disease, most nutritionists figured that adult swine needed much less zinc than young pigs did.

Grass Fed Beef Trials

REPORTS from Hillsborough Research Institute in Northern Ireland, where trials are being carried out on beef production from an all-grass diet, are catching farmers by surprise. Contrary to what might have been expected, steers fed on silage have put on nearly 25 per cent more weight at nearly half the cost of similar steers fed on barn-dried hay.

A silage of excellent quality, having 28 per cent dry matter and 14 per cent crude protein in the dry matter, was compared with barn-dried hay cut at the same time (early June) as the silage from the same 5-year-old pasture.

Two groups of steers were arranged, each comprising 20 cross-bred Angus and Herefords. One

group was fed on the silage, the other on hay. The steers, about 18 months of age, averaged 924 lb. at the start of the trial.

In the first 10 weeks those on silage gained on the average 2.4 lb. per day; those on hay averaged 1.9 lb. Both groups consumed 20 lb. dry matter a head a day.

It is reported that both groups have good finish and bloom, as indicated by appearance and handling. It would appear from results to date that silage is the more profitable since the direct labor, fuel and tractor costs are estimated as about \$6.50 for the silage and \$12.50 for the hay, per ton of dry matter available for feeding.

Demand for 600-lb. "Vealers"

VEAL producers should consider marketing their calves at heavier weights—around the 500 to 600 lb. mark — says the Meat Packers Council of Canada. By doing this the Council says farmers can make up to an extra \$20 to \$25 per head, because of the demand for meat from heavier calves.

Many western cattlemen sell their calves in this weight range during the fall, says the Council, and the higher price realized more than offsets the extra cost of feeding a vealer ration. Meat from these heavier calves is veal-like, but is called beefettes and is often graded Red or Blue and sold in competition with regular beef.

To obtain the heavier calves simply hold them back from market for an extra 9 or 10 weeks and feed them a special vealer ration, the Council recommends.

Recently a good deal of research has been done on veal production and scientists at the Central Experimental Farm Ottawa offer some hints on raising veal calves.

The researchers note the profit margin in veal production is narrow. For this reason they suggest that operations be kept small until experience has been gained in raising and marketing calves for the veal market.

They suggest these points to keep in mind: Buy calves from a reliable source. Feed only healthy calves preferably not under 80 lb. at birth. Isolate unthrifty animals. Be sure of being able to get milk or milk replacer at low cost.

Feeding calves colostrum for the first 3 days is the best insurance against disease.

Avoid overfeeding from the start. Keep feeding utensils and pens clean and sanitary. Avoid drafty pens; try to keep the temperature at 55 to 65 degrees Fahrenheit.

Aim to finish calves within the weight ranges preferred by the local market.

A bulletin on raising veal calves has recently been published by the Canada Department of Agriculture. Among the subjects covered include the selection of stock, housing, sanitation, feeding, marketing and prices and returns. Anyone interested in obtaining the booklet should contact the Information Division, Canada Department of Agriculture, Ottawa. Ask for Publication 1194, Raising Calves for Veal.

Pelleting Too Costly

PELLETING a high-roughage finishing ration for steers doesn't pay says Dr. S. E. Beacom of the Canada Department of Agriculture's Experimental Farm at Melford, Sask.

Dr. Beacom found that while steers made better gains from pelleted feed the cost of pelleting proved prohibitive — \$12 a ton compared with \$2 a ton for ground rations and \$4 a ton for a standard high concentrate finishing ration.

He bases his statement on the results of a 74-day test of the three rations with three groups of steers. At slaughter, the pellet-fed group brought about \$3 per head more than the ground ration group and about \$12 per head more than the standard finishing ration group.

But the total cost of processing the pelleted ration was \$19.50 per ton, more than twice that of processing the ground ration and more than four times that of the standard finishing ration.

Dr. Beacom estimated that a lowering of pelleted costs could make this type of feeding profitable.

Here are the results of the test:

	High Concentrate Ration	High Roughage Rations	
		Ground	Pelleted
Average initial wt. (lb.)	733	725	735
Average daily gain (lb.)	2.58	3.02	3.22
Average daily feed consumed (lb.)	19.9	25.6	25.3
Dressing percentage			
(cold carcass/off-farm wts.)	54.2	53.7	54.3
Carcass grades — Choice (red)	3	3	3
Good (blue)	3	2	2
Standard	—	1	1

Returns, over feed costs in the finishing period, averaged \$206.47, \$210.77 and \$205.90 per head for the three groups respectively. Processing cost for the high concentrate diet was \$4.60 per ton, for the ground high-roughage diet \$7.60 per ton and for the pelleted high-roughage diet \$19.50 a ton. ✓

Feeding Program for Future:

- Analyze home-grown feed
- Devise a least-cost ration

MOST dairymen buy some protein supplements, and maybe other grains as well, but the basis of the ration is home grown — hay, silage and cereal grains. Cows are expected to turn the ration into milk—profitably. It's a program that has stood the test of time. But according to Dr. Clare Rennie of the Animal Husbandry Department, O.A.C., the time has nearly arrived to make an improvement on that program.

Its weakness in the past has been this. Balancing the home-grown feeds with supplements has been largely a guessing game, since dairymen don't know for sure how many nutrients their cows get from home-grown feeds. They guess at how much supplement to add. Now dairymen use techniques like early clipping of hay, putting more forage into silos as high-protein low-moisture silage or haylage, or using well-ripened corn silage. But there can be a vast difference between forages from farm to farm. This means old thumb rules about balancing the rations aren't good enough any more. The man who buys too much protein supplement is wasting money. The man who feeds too little is sacrificing production, and probably increasing costs.

Dr. Rennie has now found a way to balance the dairy ration, and cut costs while doing it.

He used an electronic computer to do it last winter, working up rations for the college's own dairy herd, as

well as for a couple of privately owned herds. The rations were several dollars a ton cheaper, and cows maintained high production.

He prepares a least-cost ration by making a nutrient analysis of the available forages and grains. He then puts a price on the grains, including the price needed to replace home-grown grains.

These figures go into the electronic computer along with whatever restrictions he wants. For instance, if he wants 100 pounds of molasses, or 40 pounds of urea in the batch to be mixed, regardless of price, this information is fed into the computer too.

He pushes a button. The machine, which has already been told what kind of ration is required, analyzes the data in an instant, and shoots out the answer—a Least-Cost ration, tailor-made for the particular farm involved.

The idea isn't new. Similar programs are being devised in parts of the United States. Commercial feed companies use computers to cut their own costs in manufacturing feed. They can maintain the required nutrient analysis of the rations while using the cheapest ingredients possible, with the help of the electronic computer.

The question is, can farmers now begin to take advantage of this program?

Dr. Rennie issues a word of caution. It's too soon yet, he says, to devise a full-fledged program. More

development work is required in at least one phase of the program. This is already well underway—being carried out by the Department of Crops Science at the O.A.C. under Dr. Bill Tossell. It is an intensive study to find out more about the feeding value of various forages, and ways to analyze them. Dr. Tossell says present methods of analyzing grains for their nutrient content are reasonably accurate, but more must be learned about forages. He has installed an artificial rumen at the college, and is putting through 10,000 samples of forage a year in the search for answers.

He wants to find out such things as how much benefit really comes from early cutting of forages; and the differences in nutrient value between different varieties of plants, or different species.

Already Tossell reports some interesting findings. It appears that while brome grass hay has 70 per cent total digestible nutrients, timothy has only 60 per cent. He has evidence that some species of trefoil are more digestible than others.

Drs. Rennie and Tossell are co-operating closely in the project. Once they have found out how to evaluate forages more accurately, they say it will be time to go forward in computing least-cost rations on a wider scale.

Dr. Rennie adds that a least-cost ration program would be much like a soil-testing program. If and when it is developed, the lab testing home-grown feeds would recommend a complete feeding program, just as a soils laboratory recommends a fertilizer program, once it has tested the soil. To make the program worthwhile, dairymen would have to follow the recommendations carefully.

Dr. Rennie believes this program could be of real benefit to dairy farmers in the years ahead. He hopes to see research personnel such as those in his own department, furthering its development. Such a service might also be offered by commercial firms, he predicts.

In the months ahead, he hopes to find out more precisely how much benefit dairymen would get from such a program, and how costly it would be.—D.R.B. ✓

Warble and Louse Control

EARLY fall treatment of cattle over three months of age with systemic insecticides for warble and lice control is one of the best investments you can make in the beef cattle business, say entomologists with the Manitoba Department of Agriculture.

They suggest that as soon as pos-

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NEWS FOR SWINE BREEDERS PAGE 25
SEE RED CEDAR SHINGLE STORY



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sible after September 1 cattle should be sprayed with Co-ral, Ruelene or Ronnel. For lice and warble control apply either Co-ral or Ruelene by high pressure spray. Mix 4 lb. of Co-ral or ½ gallon of Ruelene 25E in 20 gallons of water. Apply at 400 lb. pressure, making sure the hide is thoroughly soaked.

Warbles alone can be controlled by pouring Ruelene 25E along the backbone of each animal. Mix one part Ruelene 25E to 2 parts of water and apply at the rate of one ounce

per 100 lb. of liveweight. Cost of treatment with the systemic insecticides works out to about 50 cents a head.

Louse control can be obtained by spraying with malathion or Ronnel. One quart of malathion 50 per cent concentrate should be mixed with each 25 gallons of water. Ronnel should be mixed at one quart 25 per cent concentrate in 25 gallons of water. Cost of treatment here with either chemical runs around 20 cents per head.

The specialists point out that under no circumstances should milking animals be treated

R.O.P. Testing Increased

THE number of calves tested under the Record of Performance program for beef cattle showed a substantial increase in the 1961-62 test year, reports D. B. Young, officer in charge of beef cattle production policies, Livestock Di-

vision, Canada Department of Agriculture.

Although the number of herds on test showed only a modest increase to 146 from 133 the previous year, the number of calves tested rose to 4,315 from 3,373—a 28 per cent gain.

The test year also saw two more provinces—Quebec and Nova Scotia—participating in the program, bringing the number to seven.

Included in the total number of calves were 2,950 Herefords, 1,044 Aberdeen-Angus, 285 Shorthorns, 24 Charolais, and 12 Galloways.

Among the changes incorporated into the program was the extension in the acceptable age range for testing to cover from 160 to 250 days of age at weaning. Previously the limits were 150 to 210 days.

Separate records for creep and non-creep fed calves were also introduced.

Creep fed Aberdeen-Angus, Hereford and Shorthorn calves showed a weighted average pre-weaning gain of 2.09 pounds daily for males and 1.87 pounds for females. Non-creep fed male calves averaged 1.97 pounds and females 1.76.

The number of Galloway and Charolais calves tested was not large enough to permit a reliable comparison with the other breeds.

Pre-weaning performance levels in the 1961-62 test year were consistent with those in the previous 5 years and there were no valid breed differences in performance between the Aberdeen-Angus, Herefords and Shorthorns, Mr. Young says.

Average variation between the top and bottom one-third of the calves within each herd again remained between one-half and two-thirds of a pound a day.

Bull calves gained one-fifth of a pound per day more than heifer calves, a level unchanged from previous years.

Creep feeding in the pre-weaning period paid off later, the tests showed, by helping to cushion the adjustment period in the change-over to feed.

However, the rate of gain was lower for both creep and non-creep fed animals in the post-weaning period.

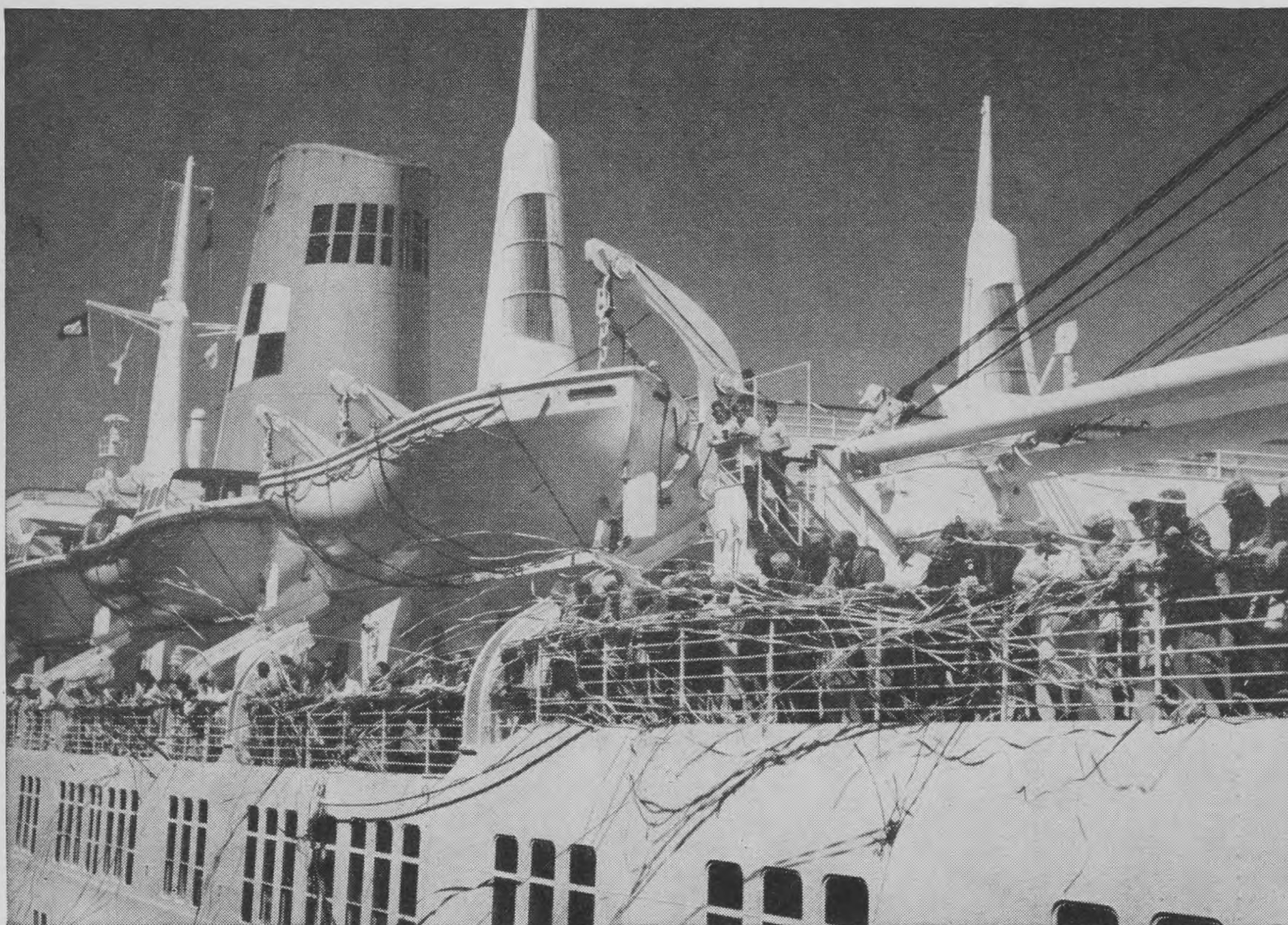
Creep fed calves showed a weighted average gain of 1.98 pounds a day for males and 1.34 pounds for females. Non-creep fed male calves averaged 1.83 pounds and females 1.14 pounds.

U.S. Proposes Feeder Grades

THE U.S. Department of Agriculture is considering setting up official grades for six kinds of feeder cattle similar to those used for slaughter cattle, according to B. G. Crewdson, livestock marketing economist of the North Dakota State University Extension Service.

The proposed standards are aimed at providing the industry with "a more reliable and uniform basis for private trading," he said.

The six official grades being proposed are: Fancy, choice, good, medium, common and inferior.



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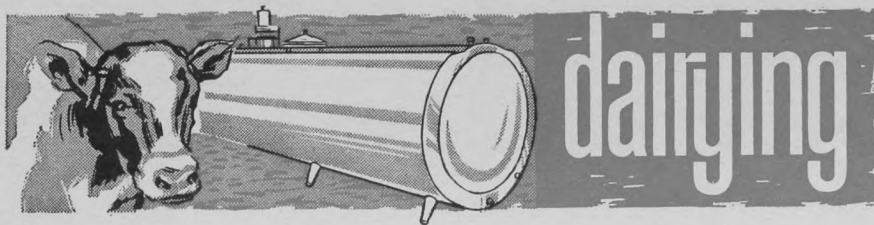
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The Residue Problem

SPEAKING to the University of Saskatchewan's eighth annual Stockman's Day, Dr. H. McDonald, Can. Agric. Research Station, Saskatoon, warned producers of the need to prevent pesticide residues from accumulating in dairy and meat products.

Dr. McDonald said: "The only reason there haven't been more cases of contaminated food before the Courts is the difficulty of getting a proper analysis done in time.

"To protect the health of the consumer of animal products federal legislation has been enacted making it illegal to sell products containing any detectable residue of an insecticide or more than a specified amount established by law, depending upon the food product. The amount of residue allowed in a food is called "tolerance." In dairy products a zero tolerance has been established for all insecticides, meaning that no detectable residue is permitted in milk, cream or butter offered for sale. There is a zero tolerance for dieldrin in meat, but up to 7 parts per million of DDT is permitted.

"No livestock man can afford to ignore the question of residues in animal products today. You are all aware that some dairy producers in Saskatchewan have been cut off milk deliveries to creameries because dieldrin was found in their milk. I need hardly remind you of the effect on the meat export market if residues were found in carcasses.

"Insecticides recommended for use on livestock to control certain insects, such as lice or warbles, or those recommended in farm buildings for fly control will not result in residues in the animal products if they are used as recommended. If they did the material would not be licensed for that use. Where then does the problem of residue arise?

"In Saskatchewan our greatest potential source of residue lies in the extensive use of the persistent hydrocarbon insecticides, such as dieldrin, aldrin, endrin and heptachlor, on crops for the control of grasshoppers, cutworms and insects on rapeseed.

"Very small amounts of these chemicals on foliage grazed or fed to animals will accumulate in the fatty tissues of the meat and in the butterfat and remain for long periods. To illustrate, dieldrin residues of 3.15 p.p.m. were found in the fatty tissues of steers grazed for 88 days on range in Montana treated with ½ oz. of dieldrin per acre. After 120 days in a feedlot on residue-free feed there was still 0.85 p.p.m. dieldrin in the fat. The grass had a residue of 1.0 p.p.m. one day after treatment, decreasing to 0.5 p.p.m. after 84 days.

"Closer to home, dieldrin residue has been found in some milk samples, and analysis of samples of straw from

fields treated with dieldrin for grasshopper control has shown residues in the straw.

"As a result of this type of information, drastic changes have been made in the recommendations for grasshopper control particularly, and in the cautions and restrictions placed on the use of dieldrin and other persistent insecticides. Unfortunately, these cautions are sometimes ignored and farmers have been known to spray pasture with dieldrin for grasshopper control in spite of the label instructions to the contrary.

"Insecticide residues in dairy and meat products can be prevented only by adopting stringent precautions. Some of the more important ones follow:

1. Use only recommended insecticides on any crop that will be grazed or fed on by livestock such as pastures, hay meadows or cereal fields to be grazed after harvest.

2. Use only recommended insecticides for the control of flies in farm buildings or insects on livestock. Never should you use sprays of DDT, dieldrin or other persistent insecticides on dairy cattle or in dairy barns just because you have a can sitting in the back shed waiting to control some crop insect.

3. If dieldrin is used on the outer few rods of a cereal field to control grasshoppers, work the straw and stubble down after harvest and before turning cattle into graze.

4. Buy only feed that the seller

will guarantee was not sprayed with dieldrin, aldrin, endrin, or other harmful chemicals.

5. Follow all precautions for use given on the label. Thus, if using dimethoate to control grasshoppers do not pasture or harvest for two days after application.

6. Do not allow your dugout or slough to become contaminated by dieldrin or similar materials while filling your spray tank.

7. Beware of insecticides drifting from one field to adjacent areas used for livestock grazing or feed.

"The above points will assist us to live with the insecticides now in general use. Our greatest hope for beating the residue problem, however, lies in the development and use of insecticides that will control the pest insect and at the same time leave either no residue or one that breaks down to non-toxic materials when eaten by the animal. Such materials are now coming into use."—C.V.F. ✓

Sprays and Their Use

SPRAYING for fly and insect control in dairy barns should be preceded by a thorough clean-up program to be successful, according to Dr. V. E. Senior, provincial veterinarian, of the Saskatchewan Department of Agriculture.

"Start the clean-up by getting manure out of the barns and on to the land where it belongs and follow up with general cleanliness," he said.

Dr. Senior emphasized these points for maximum benefit from insect spray control.

1. Power spray equipment is needed for adequate spraying of dairy barns. Chemicals should be applied to the point of run-off.

2. Wet bait or cords impregnated with a solution of Diazinon or Korlan

can be used to assist to control flies in dairy barns. Cords should be cut in short lengths and hung in rows from the ceiling well above head height.

3. In the milkhous only sprays containing pyrethrin plus synergist such as Mgk-264 can be used and utensils must first be covered. Pyrethrin is a contact chemical with no residual action so frequent use is necessary.

4. For milking cows the only spray approved for direct application on the animal is Korlan dairy cattle spray. This is a special formula containing .25 per cent Korlan together with pyrethrins and piperonyl butoxide. One or two ounces of the ready-to-use product may be applied about 20 minutes before milking time.

To control horn flies a single application should be used each day until the population is reduced following which a single application every third day may hold flies and mosquitoes in check.

Korlan may also be used for spraying the barn—a stronger preparation, Korlan 24E, is recommended for this purpose.

Malathion as 5 per cent dust using 3 to 5 tablespoons may be used on necks and backs of cattle every 10 to 14 days.

Treat at least 5 hours before milking time.

Methoxychlor as 5 per cent dust using about 10 tablespoons may also be used every 3 weeks on necks and backs of cattle. The knock-down pyrethrin sprays are also useful.

"When using any pesticide treatment on dairy cattle be *absolutely* sure it is a safe product approved for use," Dr. Senior said. ✓

NEWS FOR DAIRYMEN
SEE RED CEDAR SHINGLE STORY

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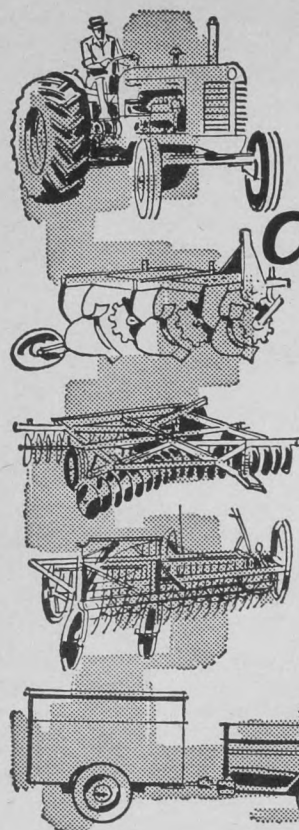
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Notice is hereby given that the Board of Directors has declared a dividend at the rate of 5% on the paid-up par value of Class "A" (Preferred) Shares (par value \$20.00 each).

This dividend will be paid on or about September 1st, 1963, to shareholders of such shares of record at the close of business on Wednesday, July 31st, 1963.

By order of the Board.

D. G. MILLER,
Secretary

July 15, 1963,
Winnipeg, Manitoba.

NEWS FOR POULTRYMEN
SEE RED CEDAR SHINGLE STORY

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POULTRY

Tests Held on Heavy Roasters

THE appearance on the market in the past year or so of heavier than broiler-weight chickens has now developed into the fairly large-scale production, particularly in Quebec, of roaster chickens of 6 to 8 lb., in weight.

The Canada Department of Agriculture poultry division, recently conducted tests to determine the efficiency of producing this class of poultry which might be useful to the industry. Included in broiler tests at the Central test Station in Ottawa were a number of cockerel chicks to be carried through to roaster weights.

The test was to 100 days of age on 7 commercial and 17 experimental entries. Each entry had 120 cockerels.

The birds were given approximately 2½ square feet of floor space each and shavings for litter. No roosts were provided. They were vaccinated with combined Newcastle-Bronchitis spray vaccine at 2 weeks of age and were injected at 8 weeks with 1.75 c.c. of tylosin. The ration contained Amprol to protect against coccidiosis.

Feeds contained 24 per cent protein in the starter and 18 per cent in the broiler finisher ration. This was reduced to 17 per cent in the roaster ration.

At the end of the 100-day test, the commercial entries averaged 7.36 lb., the best entry averaging 7.89 lb. With few exceptions, the cockerels that were heaviest at broiler age were heaviest at 12 weeks, one of the check weight points, and at the end of the test. Average final feed efficiency was 3.17 lb. of feed per lb. of gain. This gave 23.3 lb. of feed per bird marketed. All feed consumed by all birds beginning the test was included (mortality was 5.77 per cent in the broiler stage and 2.3 per cent thereafter).

The calculated average feed price was 4.6 cents per lb. giving an average feed cost of \$1.07 per bird. Assuming feed to be 60 per cent of production costs, the total cost of raising each roaster would be \$1.78.

The birds were sold for 28 cents per lb. or about \$2.06 per bird, giving a profit of 20 to 30 cents each.

Birds in the experiment entries averaged 6.93 lb., the best entry averaging 8.14 lb.

Aim for 240 Eggs Per Hen

POULTRYMEN must learn to accept change, because growth and change are inseparable. This is the advice of Bill Archibald, Sales

Manager of Maple Leaf Mills Ltd., Toronto. Speaking to poultrymen at a recent meeting in London, Mr. Archibald also offered a word of caution "Don't expand too quickly," he said. "Don't get too many new things going at once, and spread your management too thin. Leave yourself some leeway."

"Poultry buildings today must be functional, well insulated, and well ventilated," Mr. Archibald went on. "There is no place in the future of the poultry industry for converted barns."

He claimed that, today the break even point in egg production per hen is 220. Flocks where only 200 eggs are produced, lose 50 cents per bird, he claimed. If production is 240 eggs, the profit will be 50 cents per bird, while if it goes up to 260 eggs, profit can be \$1. High production was called the most important ingredient of efficiency.

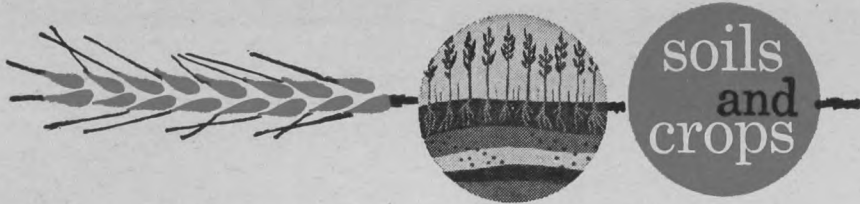
Range Turkeys Need Shade

EXCESSIVE heat during the growing season is one of the stress factors that causes delay in growing and finishing turkeys, says R. M. Blakely of the Experimental Farm, Swift Current, Sask.

Birds that run on open range where there is no shade sometimes suffer complete loss of appetite as well as prostration due to heat. A few days under these conditions will extend the growing season by at least a week with the resultant lowering of feed conversion, he said.

Range shelters which are provided for the turkeys should be carefully managed to avoid the surrounding area becoming contaminated. To avoid disease they should be moved frequently to clean ground. Make sure the birds feed properly during these hot spells by placing the feeders close by the shelters, said Mr. Blakely.





It May Pay Not to Spray

ENTOMOLOGIST Dr. N. D. Holmes of the Canada Department of Agriculture Research Station, Lethbridge, Alta., says it isn't always necessary to use insecticides on aphids. "The wise farmer will consult his ag. rep. before taking action," he says.

In some years irrigated alfalfa may be severely attacked by the pea aphid. If ample water is applied the crop will revive and will suffer little loss in yield.

Root aphids frequently attack sugar beets. Dr. A. M. Harper, of the same station, recommends they be left to insect predators and parasites which will do a better job of control than an insecticide.

A severe and widespread outbreak of corn leaf aphid on barley was controlled by limiting spraying of the crop to the shot-blade or earlier stages. The more mature plants could easily survive the attack unaided.

Heavy infestations of aphids on cover crops of oats should be sprayed. But the same condition on fairly mature wheat should be ignored.

Apply an insecticide if you want to protect elms, roses, and other ornamental plants. But to protect crops against damage by aphids without wasting money, consult the District Agriculturist, says Dr. Holmes.

Stubble Cultivation

ARECENTLY concluded 12-year study of after-harvest cultivation of stubble land for reseeded conducted at the Lethbridge Research Station showed that land cultivated immediately after harvest with a wide-blade cultivator gave an average yield of 15.7 bushels of spring wheat per acre. Land that received no cultivation, or was worked with a one-way disc produced an average of 14.3 bushels. The yield advantage resulted from conservation of moisture through the control of early-fall weed growth, primarily Russian thistle, and from leaving a snow-trap equal to uncultivated stubble.

After-harvest cultivation of stubble land in preparation for summer-fallow was studied for 6 years. Yields of spring wheat on fallow averaged 19.9 bushels per acre for wide-blade cultivation after harvest, 19.3 bushels for no after-harvest cultivation, 18.8 bushels for cultivation with the one-way disc, and 18.4 bushels on stubble chiselled to a depth of 5 to 6 inches.

All the fields were worked with the wide-blade cultivator during the fallow year. In 3 out of 6 years there were no difference in the amount of moisture conserved by the various fallows at seeding time. In two years slight differences were measured but these weren't reflected in yields because of satisfactory rainfall during the growing season. In one year more moisture was conserved in stubble fields that were bladed or were left uncultivated than in fields where stubble had been flattened by the one-way disc or the chisel plow. This moisture difference was carried through the dry 1961 fallow season and resulted in a definite yield increase in the dry growing season of 1962. Snow trapping and weed control in the stubble influenced moisture conservation.

It is apparent, say researchers, that after-harvest cultivation is potentially more valuable on land that is to be reseeded than on land that is to be summerfallowed. It is also apparent that, in either case, after-harvest cultivation will be of greatest value where early, heavy weed growth exists and where this growth can be controlled by cultivation that leaves the stubble erect to trap snow. A disc machine should not be used on stubble land in the fall unless its use is dictated by the presence of a perennial weed that cannot be controlled with a subsurface cultivator, they said.

Gains on Crested Wheatgrass

PASTURE trials at the Experimental Farm, Swift Current, show that cattle will make good use of crested wheatgrass pasture in the summer despite the fact that this grass makes most of its growth in spring. In the trials light yearling cattle were grazed on crested wheatgrass pastures from mid-June through September. Previously these pastures had been used for several years for spring pasture, but they were all in excellent condition.

Records were kept in 1960, 1961, and 1962 of the number of cattle grazed, what they weighed when put into the pasture, and what gain in weight was made on crested wheatgrass used for summer pasture. During the summer no other pasture was available to them.

The actual acreage, grazing season and number of acres allowed per animal varied somewhat each year, but the average length of the summer grazing period was 108 days, or over 3½ months. About 3 acres were allowed for each yearling. The average daily gain was 1.8 pounds. They gained about 2.1 pounds per day in June, 1.6 pounds per day in July, and 1.9 pounds per day in August and September. The average total

gain on these yearlings was 197 pounds.

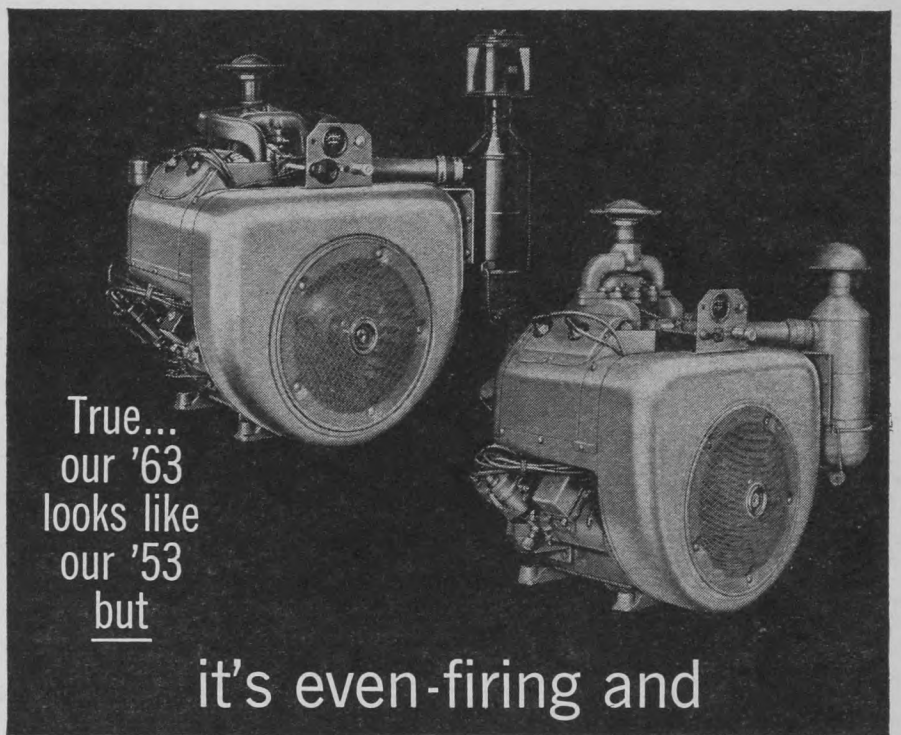
The 25 light yearlings grazing 80 acres of crested wheatgrass summer pasture would have produced a total of 4,925 pounds of beef, making good gains even in July. This indicated the value of crested wheatgrass as summer pasture, said the researchers.

Winter Wheat Recommendations

THE recommended varieties of winter wheat for southern Alberta are Winalta, Kharkov 22 M.C., and Yogo according to Dr. M. N. Grant,

Head, Cereal Breeding Section. All three are classed as winterhardy varieties. Kharkov 22 M.C. and Yogo have been grown for many years in this area, but Winalta is a new variety, developed at the Lethbridge Research Station and licensed in 1961.

Winalta has performed well during the past 2 years and indications are that as seed becomes more plentiful it is expected to gradually displace Kharkov 22 M.C. and Yogo. Winalta is said to be superior to the other two varieties in milling and baking qualities, and is equal to them in winterhardiness and yielding ability. In addition the new

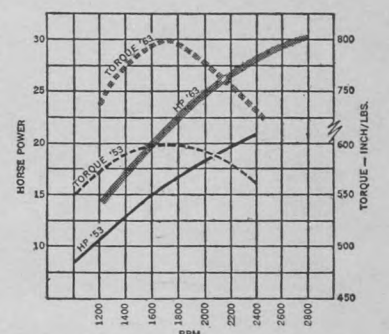


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variety matures slightly earlier and is superior to Kharkov 22 M.C. in resistance to shattering.

Seed growers expecting to have seed for sale this fall are setting up a single agency in Lethbridge to facilitate the rapid handling of seed sales and distribution. V

Cultivation Timing Critical

SUMMERFALLOWING for control of perennial weeds, including thistles, is of little use unless cultivations are timed to effectively drain the plant roots of stored food reserves and to prevent replacement of lost reserves, say weeds specialists with the Manitoba Department of Agriculture.

Young thistle shoots should be cut off when they are about 7 to 10 in. high. At this stage the shoots draw their food resources from the lateral root lying about a foot below the ground. They then begin to return food to the root to replace losses and to boost root reserves.

Each cultivation should be timed to allow as little build-up of the root reserves as possible. If this is done the root will slowly be starved, the specialists say.

After about August 1, the sole function of the shoots is to return food to the root for storage over the winter months. The shoots begin to manufacture plant food shortly after emerging. Cultivation may have to be more prompt at this time, and must be kept up until the first killing frost.

Fall is the critical time. If the summerfallow is neglected and the thistles allowed to grow, the entire season's work can be largely wasted, the specialists said. V

New Herbicide Licensed

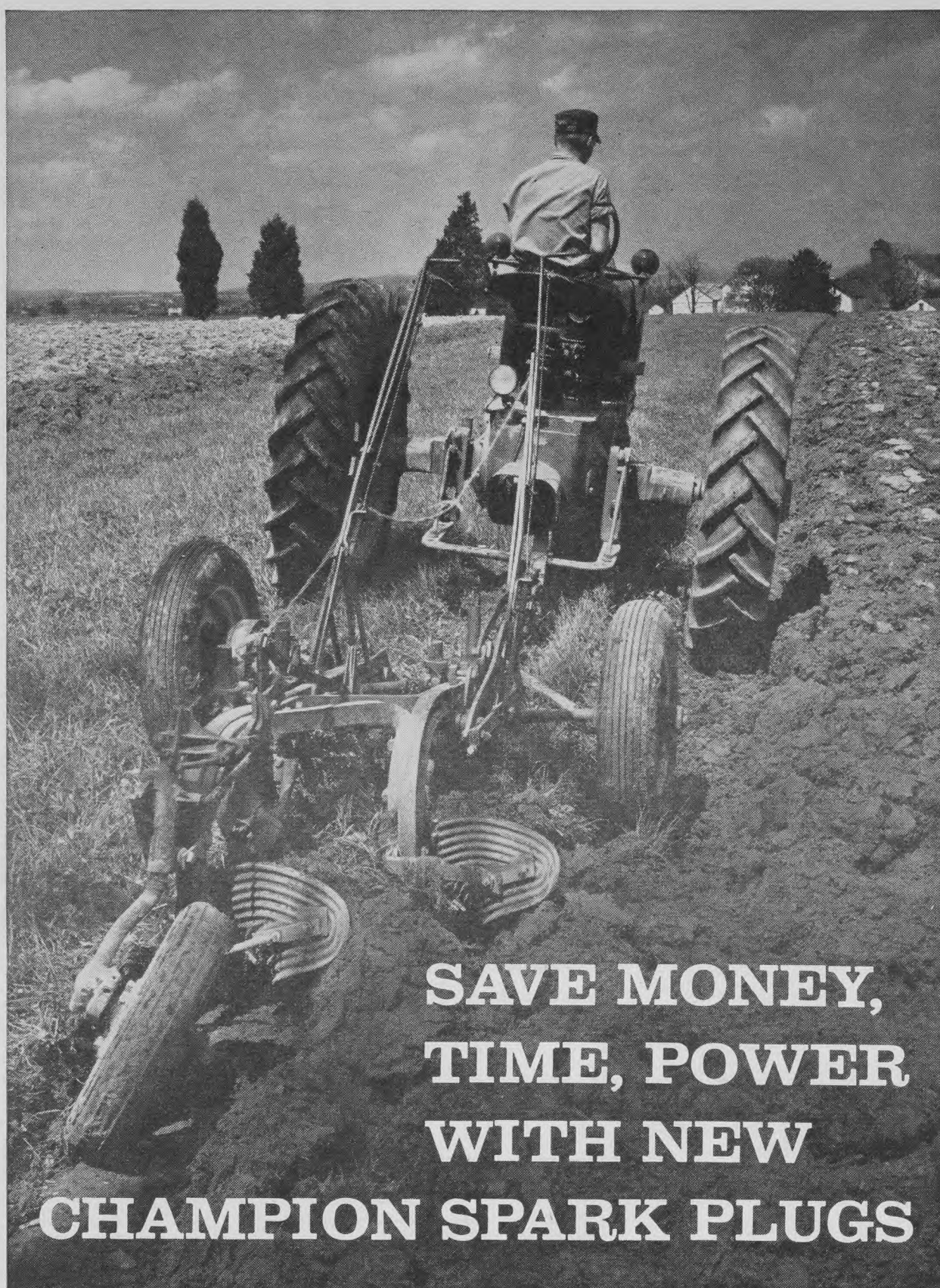
A NEW preplanting herbicide, Eptam, is now available under commercial label for a number of Canadian crops such as dry and snap beans, turnips and potatoes. It is also recommended for use on sugar beets grown for seed.

Eptam has been in commercial use for the last 2 years in the United States, and in experimental use for a longer period. It is used in controlling annual grasses, many broad leaf weeds and such plant pests as nut-grass and quackgrass.

The selective herbicide, available in granular form (Eptam 5 Granular) and as an emulsifiable liquid (Eptam 6-E), can be broadcast or applied in bands over rows. V

Black Rot in Turnips

THE Ontario Department of Agriculture has recommended a control program for black rot in turnips which includes buying registered seed, treating it with an organic mercury fungicide such as Semesan and sowing on land that has not grown

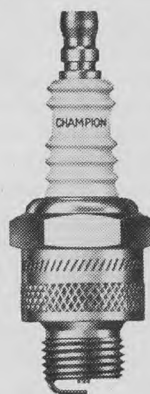


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turnips and related crops for some years.

"Keep out of the turnip crop when the leaves are wet with dew or rain, and store the roots in clean storage. Also be careful not to spread refuse from a turnip storage onto a field intended for turnips and avoid spreading manure from turnip-fed livestock on land intended for turnips," said the Department.

There will be less disease if turnips are handled carefully. Dirty wash water contains very large numbers of rot-causing organisms; change the water in the wash tank frequently or add fresh water continuously. Spray-rinse turnips in clear water after washing. Trimming after washing, rather than before washing, has reduced rot in many cases. Dry the turnips rapidly before waxing or shipping. Storage should be kept as close to 32 degree F. as possible to prolong the life of the turnips and slow the activity of decay. ✓

Forages for Saline Land

SALINE soils which won't grow satisfactory cereal crops can be put to use producing the more salt-tolerant forage grasses, says W. L. Crowle of the Experimental Farm, Scott, Sask.

Of the cultivated perennial grasses grown in the prairies, tall wheatgrass and slender wheatgrass are recommended for seeding under these conditions.

Mr. Crowle reports that breeding for salt-tolerance, mostly with slender wheatgrass and closely related species, is being undertaken at the farm.

Several hundred lines, from this continent and Europe, are being screened but it will be several years before a new variety can be expected.

He said tall wheatgrass has more salt-tolerance than slender wheatgrass but has little drought resistance, the leaves and stem being quite coarse. Slender wheatgrass is fairly drought resistant but is shortlived (about three years).

Russian wild ryegrass may prove to have more salt-tolerance than previously recognized. Brome grass and crested wheatgrass have only moderate tolerance to salinity. ✓

Pick the Right Ones

STAY with the recommended varieties of grain, says Dr. M. L. Kaufmann of the Lacombe Experimental Farm. Researchers get together every year to discuss the results of trials, and to recommend varieties for given areas. Since seasons vary, at least 3 years of superior performance are required before approval of a variety can be considered.

Remember that even though a variety has been licensed in Canada, it may not be suitable for your locality. ✓



Divide Peonies When Needed

PEOONIES are a truly "perennial" perennial, so don't divide them unless they really need it, advise horticulturists with the Ontario Department of Agriculture.

Among the signs that they need dividing are small flowers and crowded stems. Leaving them undisturbed for as long as 10 years is not uncommon.

If yours need dividing, early September through until first frost is the time to do the job. Here are some hints on what to do:

- Prepare the ground 1 to 2 weeks ahead of when you want to plant. Dig well to a depth of 12 to 14 inches, and work in some fertilizer.

- Be careful when you dig up a peony clump. Loosen the soil 18 to 20 inches around the plant and at least 12 inches deep. Gently remove some of the soil from around the roots and leave them for a few hours in the sun, to dry. This reduces the brittleness of the roots.

- Wash the roots free of dirt, and start working them until they show where they easily separate—then cut

at these points with a sharp knife. Be sure that each new piece has 3 to 4 healthy buds.

- Plant the new root divisions 3 to 4 feet apart and 2 to 3 inches deep. Mulching the first winter is usually a good idea. ✓

Weed Control in Annuals

ACCORDING to recent experiments carried out at Fredericton, N.B., only limited control of weeds is achieved with chemicals in annual flower beds.

During the experiment Horticulturist R. G. White applied 18 different herbicides to beds containing 13 species of transplanted annual flowers with these results:

Acrolinum, ageratum, alyssum, carnation and lobelia were not injured when sprayed with EPTC at the rate of 5 lb. of active material per acre. Aster, cosmos, impatiens, marigold, snapdragon and zinnia plants showed varying degrees of injury, he said.

Granules of trifluralin at 5 lb. of active material per acre reduced the weed population by 80 per cent.

Only 34 of 288 treated flowers showed any marked injury.

Alyssum, ageratum, marigold, pansy, petunia, pink and zinnia seemed reasonably resistant to this herbicide, but individual plants of phlox, cosmos, drummondii, salvia, snapdragon and stock were injured. The weed population in all treated plots was very dense.

Other weed killers tested during the experiment were less satisfactory, said Mr. White. ✓

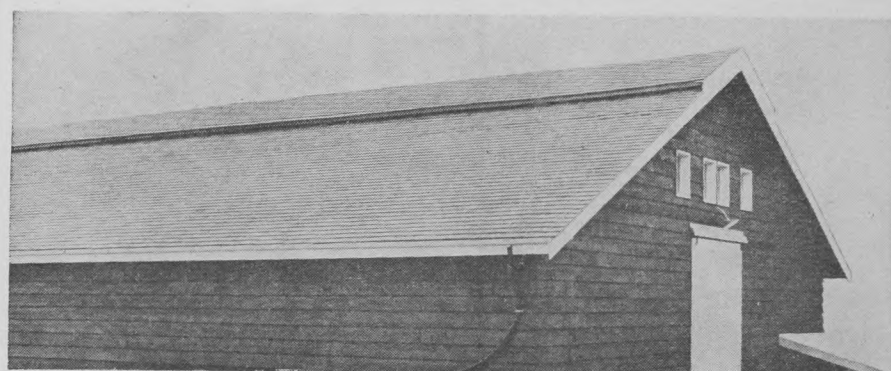
Peach Leaf Curl Easily Controlled

PEACH leaf curl is one of the easiest of fungus diseases there is to control. One spray application gives 100 per cent commercial control. There is only one catch; spraying must be timely and thorough.

Timely, means that the preventive spray application must be applied before the buds swell and growth starts, says the Dept. of Botany, O.A.C. Spray should be applied in the fall after the peach leaves have fallen, or in March or early April while the buds are still dormant. Choose days when the temperature is above freezing, and when the spray will dry before it rains or freezes.

Thorough spraying involves coating all buds and bark of the peach trees with the fungicide spray. It may take 3 gallons of spray per tree to do this and more if it is windy when the spraying is done.

There are several different fungicides, all of which will control peach leaf curl if they are applied thoroughly and in time. Ferbam, Bordeaux mixture, lime sulphur, and one of the dinitro compounds, e.g., Elgetol, may be used for spring application. Lime sulphur should not



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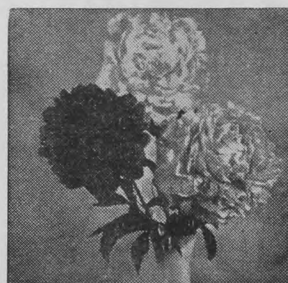
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be used in fall applications because of possible injury to buds.

When oil sprays must be combined with the spring leaf curl spray, choose Ferbam as the fungicide. Mix the Ferbam with water in the spray tank, dilute it well, and add a suitable miscible oil or oil emulsion.

Read the manufacturer's label carefully for instructions on preparing sprays. ✓

Treat New Canes

TO reduce the spread of anthracnose and spur blight diseases to new raspberry canes, cut out the old canes as soon as picking is finished and burn them, says Prof. C. B. Kelly, Botanist at the Ontario Agricultural College.

Spray the new canes immediately

with a fungicide such as Ferbam, fixed copper plus spray lime, or bordeaux mixture. If the pruning is likely to be delayed, get at the spraying first. Spores of the fungi that cause these diseases are distributed during rains.

Seventy-six per cent Ferbam WP 2 lb. per 100 gallons water; fixed copper at a rate to give 1½ lb. actual copper per 100 gallons with hydrated spray lime 4 lb. per 100 gallons; or bordeaux mixture 5-5100 will give good protection against further infections on new canes. Apply about 250 to 300 gallons of spray per acre in a mature planting.

Prof. Kelly states that the fungicides do not cure canes that are infected already. They prevent additional infections. ✓

The slugs which are about half an inch long are olive green in color and resemble tadpoles. They can be controlled by spraying the shrubs with a 50 per cent emulsion of malathion at the rate of 1 teaspoonful of chemical to a gallon of water.

Bushes should be sprayed early before damage to the leaves become too severe. ✓

Flea Beetles in Alyssum

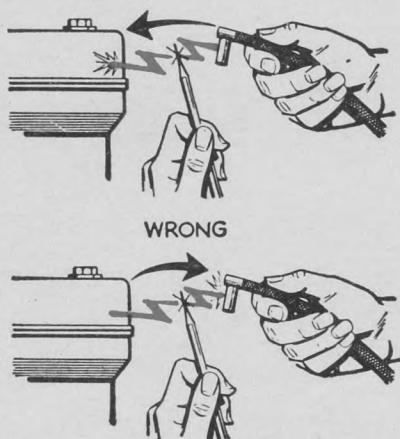
ALYSSUM which has been attacked by flea beetles can be saved by spraying with DDT, according to Stan Sheard, Horticulturist with the Saskatchewan Department of Agriculture.

Attacks by flea beetles can be widespread in the West, and many people blame the loss of blooms on summer heat. You can make sure by checking the plants. If you see a tiny black beetle a little larger than the size of a pin head which hops and jumps quite freely when the plants are disturbed, this is the culprit.

By spraying once a week the alyssum will be rid of the flea beetle and blossoms will make a come-back. ✓

TEXACO FARM TIPS...

LEAD PENCIL TESTS FOR REVERSE POLARITY IN IGNITION SYSTEM



Reverse polarity in the ignition can turn a smooth-running engine into a rough and lazy loafer, simply because it's not getting a hot enough spark in the plug terminals. There are two causes for reverse polarity: improperly connected battery, or improperly connected ignition coil. In either case, the terminals are reversed. To find out if reverse polarity is your problem, first make a visual check of the battery and coil connections. If these seem correct, you can make the next test with an ordinary wooden pencil. First sharpen the pencil so at least ¼" of lead shows. Remove one of the spark plug cables, and run the engine at a fast idle. Hold the cable terminal near the engine block, and insert the pencil point between them. Move the cable terminal close enough to the block to make the spark jump from the terminal to the block through the pencil point. If the spark jumps toward the engine block, polarity is correct. If the spark jumps from the block toward the cable terminal, polarity is reversed. An easy way to keep engines running sweetly during big seasonal temperature swings is to use Fire Chief gasoline. Texaco Fire Chief is climate controlled — blended in a seasonally-changing formula to make sure it is always right for the weather conditions in your area. Fire Chief is the regular-grade gasoline for profitable performance. Fire Chief is available on prompt delivery from your Texaco Farm Supplier — the man you trust for of all your fuel and lubrication requirements.

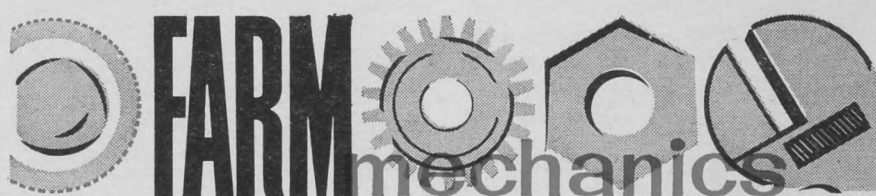
IT PAYS TO FARM WITH ...

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Pear Slugs Like Cotoneaster

PEAR slugs, which are the larvae of the sawfly, emerge about this time of year and may be seen attacking cotoneaster shrubs. If left alone they will feed on the leaves of the plant for the next 2 or 3 weeks and leave only the semi-transparent material between the veins, which gives the leaves a skeleton effect.



Barbed Wire—There Is a Choice

A manufacturer's appraisal of what constitutes the best buy

“WHAT is the best buy in barbed wire?” is the question asked by farmers, dealers and distributors. What are the facts.

There are many types of barbed wire offered on the Canadian market—three qualities from domestic mills are: **Light**—4 x 6 x 14½ gauge—50 lb. per 80-rod spool. **Heavy**—4 x 6 x 13 gauge—75 lb. per 80-rod spool. **Extra Heavy**—4 x 6 x 12½ gauge—87 lb. per 80-rod spool.

Imports also play a big part, offering these same sizes, and in addition, 16 gauge hi-tensile barbed wire. Many of the imports are lighter in weight and consequently in diameter. Some are as much as 9 per cent lighter.

The most important consideration to the farmer is: which quality is going to give the longest useful life for the dollars expended. It must be remembered that the same amount of time and labor goes into erecting poor quality fences as goes into good quality barbed wire fences.

There are basically two factors determining the life expectancy of barbed wire: (1) the amount of zinc coating (galv.) on the wire to resist weathering and corrosion; (2) the amount and tensile strength of

the steel wire under the galvanize coating.

Heavy and extra heavy barbed wire have a thicker coating of zinc than the light 14½ gauge—about 20 per cent thicker. Considering this thicker coating, and the surface area of extra heavy 12½ gauge is 29 per cent greater than light 14½ gauge, there is approximately 50 per cent more weight of zinc on the extra heavy barbed wire. When damage or corrosion takes place on a galvanized surface, the zinc “creeps” to re-seal the bare area, therefore, the more zinc there is available, the longer the period of time before corrosion starts.

It is impossible to say how long it will be before rusting occurs due to the tremendous variance in atmospheric conditions across the country. In one series of corrosion tests conducted over a 20-year period, the loss of zinc varied from .06 oz. per sq. ft. per year to .4 oz. per sq. ft. per year. In other words, corrosion occurred at a rate almost seven times faster in one area than another. Wire size also has an effect on the rate of corrosion. Probably because of the greater continuity of moisture film on fine wires, an increased corrosion attack upon the zinc coating on the finer gauge wires can be

expected. Since the control of atmospheric conditions is impossible, it is good insurance to use the product with the most zinc on it.

CORROSION of the steel starts after the zinc has deteriorated, and it works at a rate of 10 to 20 times faster than on the zinc coating. The size of wire, or the *amount* of steel is, therefore, most important in how long the barbed wire will last. It is interesting to note that the lighter the gauge of wire, the faster the loss of tensile strength. For instance, in 4 years, light 14½ gauge wire loses approximately 65 per cent of its tensile strength. Extra heavy 12½ gauge in the same 4 years loses only 40 per cent of its strength.

Strength of wire is often referred to as "pounds per square inch" (p.s.i.). These can be misleading, due to the difference in *volume* of steel between gauges of wire, even if each is of the same p.s.i. rating. For instance, if we used a common p.s.i. rating for each of the 3 gauges of wire used in barbed wire, the extra heavy 12½ gauge will have a tensile strength approximately 172 per cent of the light 14½ gauge. This means it takes 72 per cent more force to break the heavier 12½ gauge wire. The heavy 13 gauge will be approximately 150 per cent of the light 14½ gauge.

When we consider this higher initial strength and slower rate of loss of tensile strength, it is evident that the extra heavy 12½ gauge wire will far outlast the light 14½ gauge. The same principal applies as far as hi-tensile 16 gauge barbed wire versus heavier gauges. Comparing 16 gauge to even the light 14½ gauge and allowing for ratings of 140,000 p.s.i. and 80,000 p.s.i. respectively, the 14½ gauge will have an initial breaking strain almost 10 per cent higher than the hi-tensile 16 gauge. When we consider the more rapid loss of tensile strength in the 16 gauge there is no comparison between the two after a year or two in the field.

It can be concluded while initial cost is certainly important, it seems false economy to buy the light product, when for an extra cost of three to four cents per rod, a farmer can get the extra heavy quality. In rural atmosphere, considering 20 per cent more zinc and 72 per cent more steel, it is reasonable to estimate at least double the life from the extra heavy barbed wire. Only the farmer knows

what it costs to erect the barbed wire. The old adage still holds true—"You get what you pay for." V

Uses Gunpowder to Split Logs

PROF. J. H. Cooper of Macdonald College, Quebec, has devised a simple way to split pulp wood logs down to manageable size, using gunpowder, rather than the old method with chisels and sledge hammer.

Cooper devised a unit consisting of a steel plate which is hung against the butt of the log, with a nail, and fitted with a steel cylinder into which gunpowder is packed. He inserts a fuse into the gunpowder, and at the explosion, the gases emitted through the "choke" of the cylinder, penetrate the log, splitting it into two sections. If a simple slot-shaped choke is used, the gases break the log into two pieces; with two slots in the form of a cross, the log splits into four sections.

Cost of gunpowder and fuse for each charge is about 5 to 10 cents

per log. It takes three to four minutes to pack gunpowder into the cylinder, add the fuse, and split the log.

Prof. Cooper's log splitter is still experimental, although the idea has been put to use by at least one pulpwood contractor in the province.—D.R.B. V

Spherical Septic Tanks

RECENTLY approved for use is a round fibreglas septic tank which weighs less than 200 lb. Earlier attempts to market a cube-

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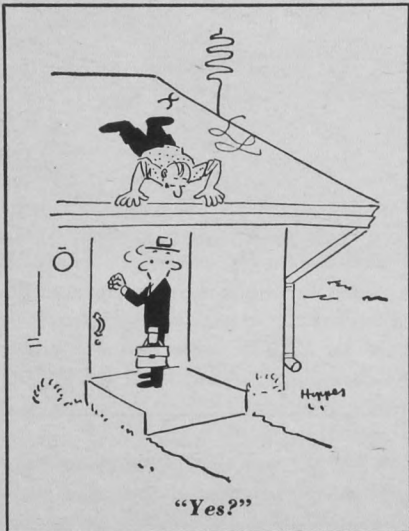
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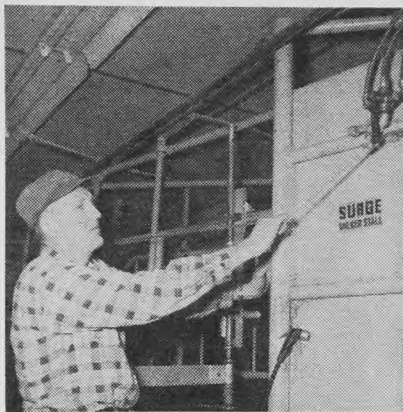


shaped fiberglass tank met with failure because of the tendency of the sides to sag under weight. Be-

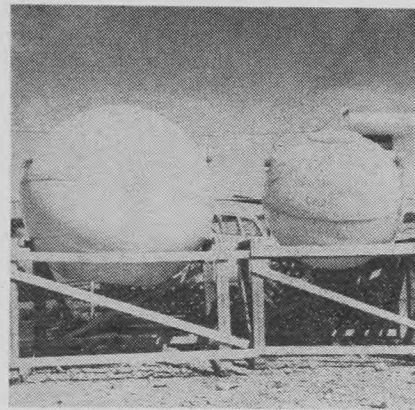
Capacities are 410 gals. and 200 gals. —C.V.F. ✓

Handy Door

There is no heavy tugging by Walter Wilson to open the milking parlor door each time a cow is ready to leave. He has a hydraulic



door opener. One easy pull, and the sliding door is opened by hydraulic unit. Wilson farms at Ingersoll, Ont. ✓



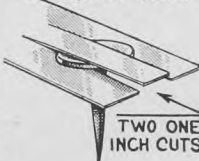
cause of the spherical design this model can withstand pressure up to 15,000 pounds per square inch. It has no corrosive parts, is cheap and easy to transport and has a predicted life of 50 years. There is a 5-year guarantee against defective materials, workmanship and corrosion. The larger unit costs about \$240—the smaller one, \$145, f.o.b. factory.

WORKSHOP

Tack Vise

To save fingers when driving tacks, take a piece of light spring steel about 4 inches long by 3/4-inch wide. Make two small cuts 1-inch long at one end making sure the center strip is narrower than the head of the tack being used. Slip the head of the tack over the outer strips and under center strip. This will hold the tack in place. Using the other end as a handle you place the tack anywhere you want it without nipping your fingers. —J.M.B., B.C. ✓

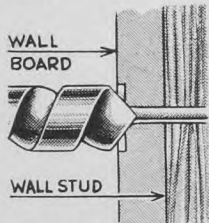
PIECE OF SPRING STEEL SAVES FINGERS WHEN DRIVING TACKS



TWO ONE INCH CUTS

Remove Nail Heads

When you have to remove soft wood or wallboard without marking or breaking the surface try this idea. Center punch the nail heads holding the material on the wall then drill through them and into the shank until the shoulder of the bit goes all the way through the nail-head. The material will then slide over the headless



WALL BOARD
WALL STUD
DRILL HEADS OFF NAILS TO REMOVE WALLBOARD, ETC.

nail leaving only a small hole. The drill bit should be slightly larger than the shank on the nail. —J.W., Alta. ✓

Straightening Coins

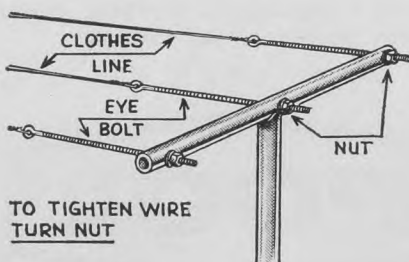
Old coins which may be rare or valuable are sometimes bent when they are acquired. They can be straightened, unmarked, if you place them between two cross-cut sections of hardwood and hammer the wood. The wood will dent but if you turn the coins and repeat the process several times they will eventually become straight without having the scratch marks you get if you use a vise. —H.M., Ont. ✓



HAMMER COIN BETWEEN HARDWOOD BLOCKS TO STRAIGHTEN

Clothesline Tightener

Long bolts passed through a tubular type clothes line holder, as illustrated here, are attached to the

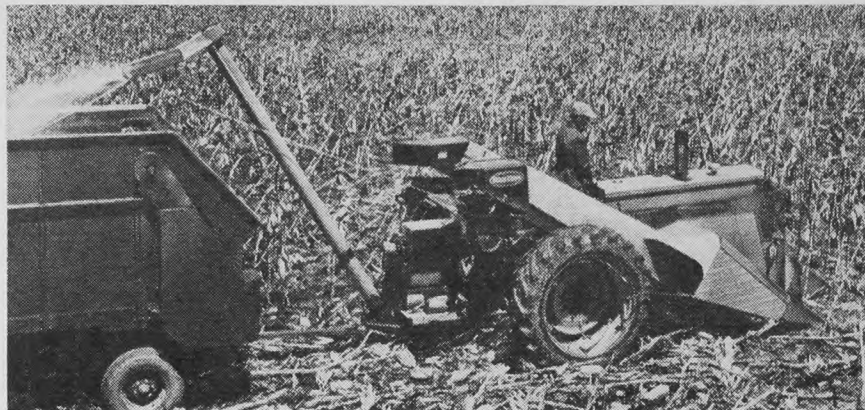


TO TIGHTEN WIRE TURN NUT

clothesline and can be tightened at will by screwing the nuts on the end of the bolts. —Z.H., Man. ✓

WHAT'S NEW

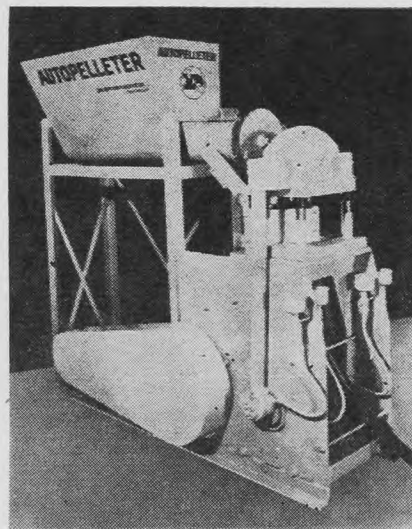
Interchangeable Corn Grinder



This high capacity grinder is quickly interchanged with the husking bed, snapper elevator or field sheller, on the maker's mounted gathering unit. It cuts, sizes and cracks kernels and delivers direct to wagon. (New Idea Equipment Co.) (430) ✓

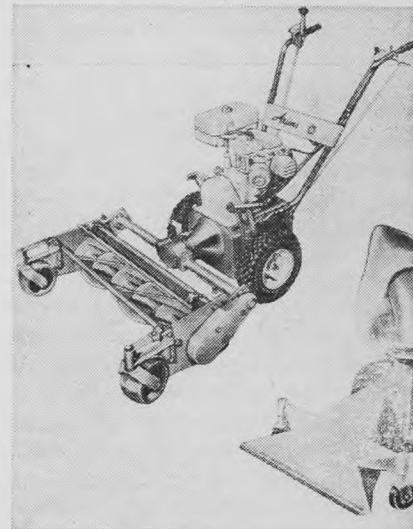
Versatile Tractor

Two new attachments for this 6 h.p. tractor are a 30-inch reel mower and 30-inch nose cone lawn vacuum. The tractor has 4 forward speeds plus reverse — belt, gear and chain drive through friction disc clutch. Front castors on both units make for easy maneuvering in confined areas. (Ariens Co.) (432) ✓

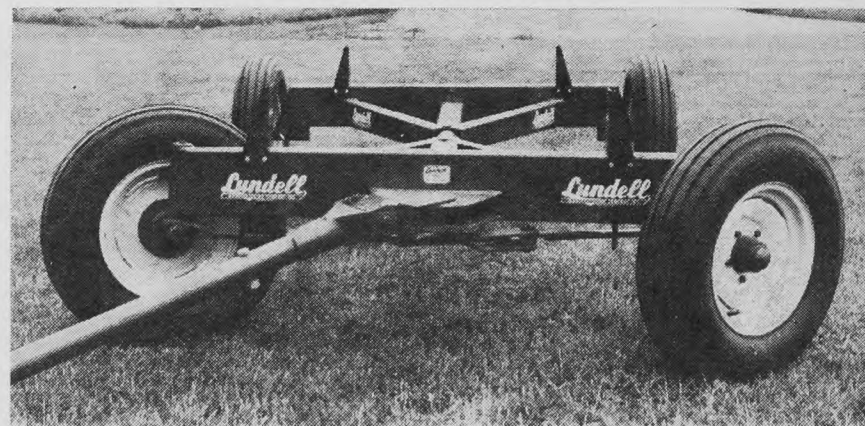


Autopelletter

Said to be ideal for the feeder requiring from 1 1/4 to 1 1/2 tons per day the automatic pelletter has a size range from 1/8 inch to 1 1/8 inch in diameter and from 1/4 inch to 5 inches in length. The new pelletter has a 5 h.p. power requirement, electric, diesel or gasoline driven. (Irl Daffin Associates Inc.) (431) ✓



Heavy Duty Wagon



Extra heavy telescoping tube tongue, short turning and steering stability are built-in features of this new wagon. Standard reach is adjustable for extra length, tread is 72 inches. The bearings are 1 1/2 inches inside and 1 1/2 inches outside. Spindle is 2 inches in diameter. (Lundell Mfg. Co., Inc.) (433) ✓

Items in "Workshop" are contributed by readers. If you have some handy workshop ideas that you think would be useful to other farmers, send them to The Editor, The Country Guide, 1760 Ellice Avenue, Winnipeg 21, Man. Payment is made for contributions which are accepted.

For further information about any item mentioned in "What's New," write to WHAT'S NEW, The Country Guide, 1760 Ellice Ave., Winnipeg 21, Man. Please quote the key number that is shown at the end of each item.

C D E F G H I J K L M N O P Q R S T U V W

the Petition

by RAY PETERSON

"PREACHING a sermon is a lot like buying a new piece of machinery," Dad says. "You've got to be able to put it to work in your own field. Shiny paint or fancy words don't help much if you just use them for show."

My Dad, Jim Gordon, claimed he was a man of peace, but sometimes it seemed to me that he became involved in more commotions than anyone else around. I guess it wasn't his being a preacher that caused all his trouble so much as it was the kind of preacher he was. Actually, he wasn't really a man of the cloth. Dad was a farmer, who filled in when the student ministers who served our rural district of Many Hills didn't show up. With our poor roads, a spell of bad weather sometimes had Dad taking services pretty regularly.

I often wondered how Dad could draw such big crowds. His voice was sadly lacking in silvery overtones or dramatic bursts and the composition of his sermons made even my indifferent, grade five grammar shudder. Dad didn't put much store in ritual or dogma, and his handling of a subject was frequently very unorthodox.

But for all his faults, Dad had much to offer. He didn't make any pretenses. The utter sincerity of his beliefs shone from his red, weatherbeaten face, and a great, bounding, contagious joy soared from his untrained throat as he led his flock in song. No slow, stately hymns for Dad. His favorites would have enthused any old-time revival meeting. How the single-roomed schoolhouse, which served as a church on Sundays, rang with "Rescue the Perishing" and "He's the Lily of the Valley."

Dad's true worth stood out when it came to applying Christian principles to the people around him. In dealing with local problems, Dad could often dig to the root of things and start people thinking better than any minister from the outside could ever hope to. One of the reasons for his success was because he didn't stop at the pulpit. Once started on a thing, he'd keep at it until he either won, or was soundly beaten.

WHEN I first saw our new teacher, Mrs. Vivian Rogers, and her daughter, Selma, I never suspected they would bury Dad in a peck of trouble. It didn't take long, however, before the signs of strife were pretty plain. In fact, I heard some of the opening rounds when I came home from school the second day.

Mrs. Cassidy, a tall, rangy woman, waspish of waist and tongue, had cornered Dad in the kitchen.

"Jim Gordon!" she said, her voice all hot and righteous. "What's the idea of hiring that widow woman as a teacher?"

"Why?" Dad asked, his eyebrows climbing. "Does being without a husband disqualify her as a teacher? Seems to me that makes her more in need of a job than ever."

Mrs. Cassidy snorted, almost choked. "You know that's not what I mean." Her eyes stormed

over Dad, every line of her angular face harsh and accusing. She spat her words with deliberate clarity, swelling each one with a load of scorn. "That woman is a halfbreed!"

Until then, I'd thought Mrs. Rogers seemed as if she'd be a nice teacher. Now, I wasn't so sure. The way Mrs. Cassidy was acting, it appeared that being a halfbreed was something terrible.

Of course, I knew that Mrs. Cassidy was very snooty. The Cassidys were important people in



Butch leaned forward, thrusting his face down within an inch of Selma's small, dark one.

Many Hills, and they never let anybody forget it. In addition to owning the biggest and best farm in the district, they operated a general store, the only place of business for many miles. According to Mrs. Cassidy, they were the cream of Many Hills society. If you weren't included in the very limited confines of her own, private "Who's Who", you were supposed to be a lower class citizen.

I glanced at Dad. He didn't seem to be very impressed by Mrs. Cassidy's outburst, but then, he could look calm no matter what he was really thinking.

"Now, Martha!" Dad said. "I don't see any reason why that should bother you."

"Hmph!" Mrs. Cassidy said, "You just don't want to see." She waved her hands, then added pompously, "I was instrumental in electing you to the school board, and now you've betrayed my

"I am a halfbreed, too!" Dad said, and I could hear the congregation gasp.

Illustrated by EMILE LALIBERTE

trust. You've turned our school into a social poor-house."

Dad's gaze was steady, his blue eyes almost benign. He could have reminded her that he had been re-elected to the board the last two terms by acclamation.

Instead, he said, "I'm sure you're just upsetting yourself over nothing, Martha. And after all, it wasn't just my own, personal decision. All of us on the board were favorably impressed with Mrs. Rogers."

"Fiddle-faddle! The others don't mean anything, and you know it," Mrs. Cassidy retorted. "You're the chairman and the rest string along with whatever you say." She pointed a finger at him, her voice rising stridently. "That woman isn't fit to teach the children of this district."

Dad's control of his temper always seemed a miraculous thing to me, but for once, I could sense that his emotions were being honed a little thin.

Dad's words were still calm and slow, but they had a decided edge to them. "So far, Martha Cassidy! The school board of Many Hills goes by a teacher's educational credentials, and not by his, or her blood lines. Furthermore, I will do everything that I can to keep it that way."

"My! Aren't we noble?" Mrs. Cassidy said, with a snort and a toss of her head. "I think it's high time that you learned a little common sense. Idealism may have its place, but that place certainly isn't the classroom."

"I disagree," Dad said.

"Seems to me that a school is about the last chance a youngster has of learning some of the finer things of life. If he hasn't had a taste of them by the time he leaves school, he's sure going to have a tough time learning them afterwards."

Dad's red face was stern. He leaned towards Mrs. Cassidy.

"I'm not backing down, Martha. I'm certain that Mrs. Rogers is a fine woman and a fine teacher. I say she stays."

Mrs. Cassidy was a stubborn woman, but I guess she knew from previous bouts that Dad was just as determined as she once he'd decided that a matter of principle was involved.

She smiled, but her eyes were still cold, and her voice caustic. "Ellen!" she said to Mother, "I think you'd better watch this man of yours. He's let a pretty face addle his senses."

FOR several months it seemed as if Dad had halted any direct action by Martha Cassidy against our new teacher. I knew that she hadn't reversed her thinking, however, because Butch Cassidy — he was the same age as me — said so.

He often echoed his mother's opinions at school, and frequently enforced them as well. (Please turn overleaf)

He really took his mother's dislike of the new teacher to heart. Butch, like his mother, was a bully, and since he was bigger and stronger than most of us, all of us boys gradually followed his lead, and referred to Mrs. Rogers and her daughter, Selma, as "those breeds."

Suddenly Mrs. Cassidy exploded again. She had discovered that Dennis, her eldest son, the one who clerked in Cassidy's store most of the time, was courting Mrs. Rogers.

"There's not going to be any half-breeds in my family," Mrs. Cassidy told Dad fiercely. She braced her hands on her hips, her face grim. "I'm warning you, Jim Gordon. Either you send that woman packing, or I'll turn this district upside down."

I could just about see her doing that, and I guess Dad could, too, but he didn't hesitate or mince his words.

"I gave you your answer before, Martha, and it still stands." He shook his head, his voice deepening with a p e a l. "Won't you reconsider? You're a very intelligent woman, Martha. Surely you realize that you haven't any moral or legal right to back up such a demand."

Mrs. Cassidy shook a sheet of paper under Dad's nose. "You see this, Jim Gordon? I'm getting up a petition demanding the resignation of that Indian. We will see how much backing I get. How much will you bet that I don't get most of the people in the district to sign it?"

Dad's face tautened. "Martha, if this quarrel was a personal thing between you and me, I'd give in to you, gladly, rather than cause a lot of trouble. But it isn't. Besides being a great injustice to Mrs. Rogers, it involves the ethics of the entire community. As chairman of the school board, I'm going to fight you with everything I can lay my hands on."

"When I'm finished," Mrs. Cassidy vowed, "I doubt whether you'll still be chairman of anything." With that parting threat, she stamped from the house.

DAD paced the floor, his hands clenched behind his back. He halted, to stare through the living room window, his eyes fixed on the painted buildings of the Cassidy's farmstead just across the road from us, and the even closer false front of Cassidy's roadside general store. He wheeled, resumed his pacing, finally stopped in front of Mother.

"What am I going to do, Ellen?" he asked. "I should have been better prepared. I should have known that Martha would eventually take up where she left off. She never really drops anything without a battle. Now, this thing has gotten out of all proportion to one selfish woman's thinking. Bigotry is a cancer that is tucked away in all of us, just waiting for an excuse to erupt. I'm afraid that Martha is going to provide just that excuse for far too many people in Many Hills."

Mother smiled. "You worry too much, Jim."

She put her hand on his shoulder, gave it a tight little shake, sort of like she does with me when I'm down in the mouth about something. She held out an envelope.

"Don sent a note saying that he won't be able to come out and hold

service this coming Sunday. He's in bed with flu, so you're elected preacher again. That gives you three whole days to prepare a real, blistering sermon."

Dad looked rueful. "You're too optimistic about my powers as a preacher," he said. "If sermons alone could persuade people that fast, there wouldn't be many wrongs left in this old world."

"But you can try, Jim," Mother said, and her eyes shone with so much faith, that I sort of caught my breath just watching her.

"Yes, I guess so," Dad answered, his words sounding heavy and flat. Then, as if overwhelmed by Mother's trust in him, he brightened. "I'll sure try, Ellen. I'll sure try."

Dad hitched Queenie, our fastest horse, to the buggy, and spent the next two days visiting folks, trying to persuade them not to sign Mrs. Cassidy's petition. Trouble was, it seemed like every place he went, Mrs. Cassidy and her Ford had been there before him.

It was pretty late when he drove into the yard the second evening. Mother had been waiting supper over an hour, but you'd never have guessed it, the way she seemed so pleased to see him.

There was meat pie, Dad's favorite, mashed potatoes, and home-canned green peas steaming under a fat pat of butter. And up on the cupboard, just behind his chair, a freshly baked ginger cake spilled out a wonderful aroma.

Dad took a couple of half-hearted bites. He dropped his fork. "Oh Ellen!" he said, "I knew that I had a fight on my hands, but I never figured it would be this bad. You just can't imagine how many people agree with Martha. Why, some of our staunchest church members are the worst. Take Pete and Rachael Blake. They came right out and said that their names were at the top of Martha's petition, and they were proud of it."

He shook his head, drummed big fingers on the table top. "Of course, they weren't all like that." He half-chuckled. "Old Mrs. Gunn chased Martha out of her house with a broom when she finally made out

what that miserable petition was about."

"Now, Jim!" Mother scolded gently. "You're too excited. You're letting your supper grow cold. You know you'll feel better after you've tucked a bit of food under your belt."

"Sure! Sure!" Dad said. He picked up his fork and buried it unseeingly into a mound of potatoes. "I had a talk with young Dennis, today. He's terribly bitter. Says Martha told him they would disown him if he didn't drop Vivian. He's all for finding another store job, and then running away with her and getting married. I tried to slow him down. Tried to show him that we've got to face this thing squarely. Got to make his Mother back down, somehow."

I FELT sorry for Dad, and I wanted him to win, but I was certain that he was fighting a losing battle. I wondered if he realized what a stranglehold Mrs. Cassidy had on the district. It was just like Butch had bragged at school.

"Boy! Mom sure's going to fix that halfbreed teacher of ours. She's got her petition full of names already." He laughed. "You know that new guy with all those little kids, the one on Mackenzie's old place. Well, he started to tell Mom that her petition wasn't very fair. Did she ever tell him! She said, 'How come you can't support me a little bit? If you dislike me so much, perhaps you'd like to pay up your grocery bills and take your business somewhere else.' He laughed harder than ever. 'Did he ever sign up quick, then.'"

Dad pushed back his chair, rose slowly. He walked to the window, stared out toward the Cassidy store. Suddenly it seemed as if he had been reading my mind.

"These hard times make things worse," Dad said. "I think that Martha holds bills on nearly half the people in Many Hills. What a weapon! Cross her . . . no more credit."

He turned. "I'll have to see Vivian tomorrow. Dennis says she's ready to quit. Guess she has run into this sort of thing before. I've just got to make her see this thing through. If she runs again, she'll end up thinking

that she actually is an inferior person."

I watched Dad as he pulled on a smock, and went outdoors to finish the heavy part of the chores, the ones I couldn't handle. His shoulders were stooped more than usual, and his feet scuffed the ground like he was dead-tired. He was talking to himself.

"That Martha and her store! If I could just force her to back up, I think I could talk a little sense into the others."

AFTER Mrs. Cassidy had started her petition, Butch was more critical, more contemptuous of Mrs. Rogers and Selma than ever. Of course, he wouldn't quite come out and say anything to our teacher, herself, so he heaped all of the abuse on Selma. The next day, he was going stronger than ever.

Butch pressed close to Selma. He didn't quite dare to actually hurt her physically. He hung his head to one side, his mouth open and slack, and gave her one of his special "stupe looks."

"Boy!" he said, "Is your Mother ever dumb, thinking that she is going to stay here, and marry my big brother. My Mother says that we aren't going to have any Indians in our family ever if she has to chase you two out of here all by herself."

Butch leaned forward, thrusting his face down to within a few inches of Selma's small, dark one. "But she won't have to do it alone, not as long as I'm here, see!"

"Hey! You guys!" Butch said, turning to the rest of us boys, "I made up a real good rhyme, last night. C'mon everybody! Sing it along with me."

"Ha! Ha! Ha!"

Selma is a halfbreed! Halfbreed!
Pigeon-toed and knock-kneed.
Beat her up and chase her out!
We don't want any breeds about."

Selma Rogers looked too tiny to be in grade three. It seemed to me that she was even smaller as the entire gang of us boys, and some of the girls, too, crowded around her.

She gazed at us quietly, and as quietly turned her back. But I noticed, with a sudden stab of guilt, that there were tears glistening in her huge, brown eyes, in spite of the determined set of her mouth.

"Guess she didn't hear us," Butch said. With one eye cocked toward the schoolhouse in case Selma's mother should pop out unexpectedly, his voice shrilled higher in his derisive chant.

The rest of us, like so many props in a dictator's party, joined in. I didn't know about the others, but for me, the game was beginning to wear a little thin.

"Aw, Butch!" I said finally. "We'd better take it easy. She's almost crying. She's liable to tell her mother."

"So what!" Butch growled. His jaw jutted out. "It's the truth. My mother said so, herself." His eyes darkened. "Are you like your old man? Trying to take their side?"

I hesitated. Until then I hadn't really thought how I was betraying Dad by helping Butch torment Selma. I clenched my fists, I couldn't





let Dad down. Then, under the hostile scrutiny of Butch and his closest cronies, my courage oozed out of me.

"No! Butch!" I said weakly. "I was only thinking, that's all."

HALFHEARTEDLY or not, I was still repeating Butch's bit of doggerel when Dad's voice cut in above our babbling. None of us had seen or heard him as he drove up with Queenie and the buggy. Now, all of us, even Butch, stood aghast.

Dad stared at us, his stillness matching ours, each long terrible second dragging into a longer one.

Finally, Dad said, "I'm ashamed of the lot of you. What bravery to pick on one, small girl. It better not ever happen again." He motioned for us to scatter. "I'm going to have a talk with your teacher."

I'd never felt so low, so sneaky. How I wished that I could have recalled each unkind word I'd ever said to Selma. Dad didn't mention the affair again, but all that evening, and most of the next day, the guilt of it kept poking away at my mind. Why hadn't I stopped to realize that I was helping to defeat Dad's cause by siding with Butch and the rest of the gang?

I was still thinking along those lines on Sunday. I sat in church with my eyes down, hardly hearing Dad begin his service. I kept dwelling on the things I could have done, the things I should have done to have helped Dad instead of hindering him.

For one thing I could have stood against Butch. Or could I have? It wasn't so much that I was afraid of him physically. From a past experience I knew that I could at least battle him to a draw. It would have been the standing alone I would have dreaded the most. Butch and the gang would have shunned me. I would have been all by myself . . . like Selma.

All of a sudden, a sentence of Dad's sermon hauled me to attention. I heard every awful syllable with startling clearness, but I could hardly make myself believe them.

"I am a halfbreed, too!" Dad said. I could hear the congregation gasp. "And what's more, many of you sitting before me have equally mixed blood."

Dad pulled in a deep breath of air, and tugged at his tie as if it was

choking him . . . he only wore a tie on his preaching days.

"Before any of you turn purple and fall in a fit over this halfbreed nonsense, I'll explain myself. I'm half Scot and half Swede, just as some of you are part one thing, and part something else. But technically, we are still halfbreeds, and in the eyes of our God, and the laws of our country, not one whit better than the kind of halfbreed you were all thinking about. We are made in the image of God, but who says that He has a pure white skin? Personally, I believe that he has a dozen hues, a dozen faces, and forms, and not the least of these is red."

Dad halted, cleared his throat. His spare frame swelled as he began to speak again. His voice suddenly vibrated with an intensity and power I'd never heard before. He flung out a big hand, all hard with the calluses of honest toil, and it seemed to me that it was pointed straight at me. From the sudden hush, though, I guess most everybody, maybe even Mrs. Cassidy, felt that each one of them was being singled out.

"Now!" Dad said, "As you repeat the Lord's Prayer with me, imagine that we are bowing our stiff, oh so white necks to a hook-nosed, Indian-faced God."

CHURCH seemed to dismiss much more quietly than usual. Many of the members didn't wait to congratulate Dad on his sermon, or to shake hands. I guess a lot of people felt like me, too ashamed to stand around talking.

Now, I'm not saying that Dad's sermon changed Mrs. Cassidy's personal feelings toward Mrs. Rogers. I'm sure it didn't, and perhaps nothing ever will. But his sermon did give Mrs. Cassidy a reasonable sounding excuse to drop the petition against our teacher, and, with her apparent change of mind, all active resistance against Mrs. Rogers collapsed.

I OFTEN wondered how Dad managed to make Martha Cassidy call it quits, but it wasn't until the day before Dennis Cassidy and Vivian Rogers were married, that I found out.

Dennis came over to thank Dad for all he had done. Before he left, he said, "You know, Mr. Gordon, I've got a question."

"Yes?" Dad said.

"Well, when you offered to provide the land, and the biggest share of the credit to set up a store in opposition to mother's, would you have really done it if she had refused to back down and forget that silly petition?"

"Of course," Dad said. "It would have broke me, too." He smiled depreciatingly. "But I don't think the risk was ever very great. Your mother loves importance and power almost more than anything, and that store provides her with a very great deal." He sighed, his face regretful. "I wish there could have been a more peaceable way."

I had a thought, then, but I didn't embarrass Dad by saying it out loud. I just kind of wondered if maybe, David, so long ago, didn't think something similar when he had to lay down his harp for a slingshot. ✓

Sow seeds from the fruit basket for glossy, green foliage

Grow Your Own Citrus Plants

by DOROTHY R. TURCOTTE

IF you love houseplants, but would like a change from the usual African violets, begonias, ivy and philodendrons, try growing your own citrus plants! Orange, grapefruit and lemon seeds, judiciously tended, can develop into beautiful little trees with glossy, pointed leaves. For the real enthusiast, seeds from limes, tangerines and kumquats also can provide an interesting challenge.

A word of warning before you start, however! Don't plant citrus seeds expecting to harvest your own fruit and supply the breakfast table. Older orange and lemon plants may eventually produce fruit, but it is likely to be tough, pulpy and bitter unless grown in a subtropical climate.

In North America, citrus plants grow best in Florida, California and Texas. They thrive in tropical climates, too, but their fruits do not have the delicious flavor to be found in those grown in more moderate climates. These plants also grow successfully farther north on the continent, but their fruit is inferior in quality. However, because the plants are so attractive they are worth the effort for their beauty alone. Incidentally, grapefruit plants grown from seed are of a neuter gender, and therefore they do not bear fruit.

When you enjoy your morning citrus fruit, save the seeds and soak them overnight in warm water. Sow them in sandy soil just below the surface. Germination may take up to 6 weeks, so don't be impatient. Just when you're about to give up

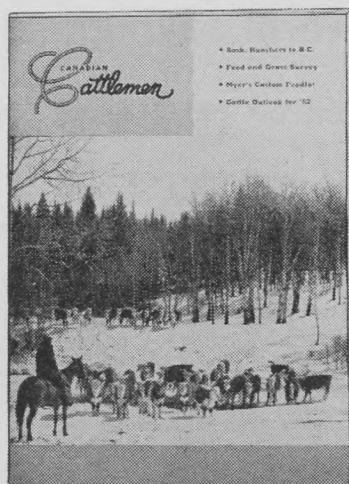
and plant something else in the pot, a tiny shiny leaf will poke up through the soil!

While you are waiting for germination, water the seeds lightly so that the soil is damp but not wet. Cover the pot with a piece of glass or clear plastic. As soon as the seedlings appear, remove the cover and place the pot in a window where it will receive plenty of light.

When the young plants are about two inches high, transplant them into 2½" clay pots. Use a sandy potting soil consisting of one-half loam, one-quarter peat moss or leaf mold, and one-quarter sand. Or use the sterile, packaged houseplant soil available in hardwares, supermarkets and nurseries. As growth continues, keep the soil moist, but be careful not to overwater the plants. Growth will be rapid at first but it will soon slow down.

Citrus plants should be re-potted annually into larger pots. During the summer months, you can keep the plants out-of-doors. Choose a shady location and bury pot and all, up to the rim. Be sure to bring the plants indoors well before any danger of frost.

In caring for your citrus plants, always remember that their natural home is in a warm climate with little wind. Keep the plants in a sunny window. In winter, protect them from drafts. With very little special care, you'll be able to enjoy your lovely citrus plants for many, many years. ✓



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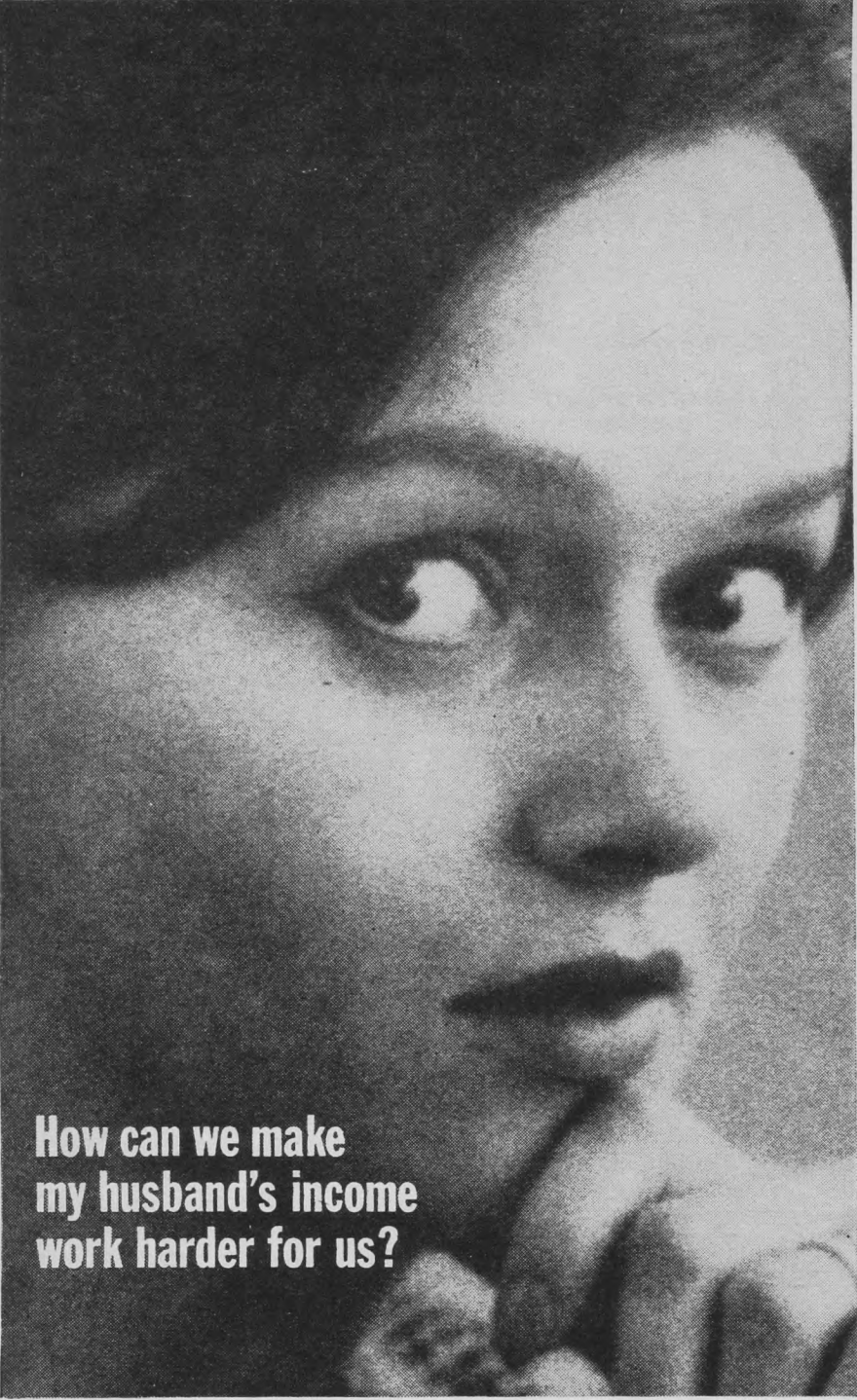
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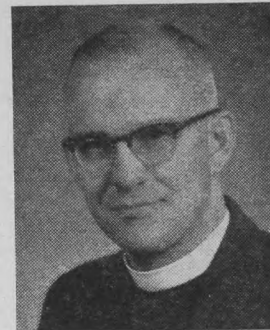
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Let's Think It Over

by **THE VERY REV. M. L. GOODMAN**



The Undiscovered Country

"The dread of something after death—the undiscovered country from whose bourne no traveler returns."

These words are from Hamlet's famous soliloquy. No where else in literature do we find the phrase—"The Undiscovered Country." Let's take it out of its dismal setting in Shakespeare's play and use it in another way.

"The Undiscovered Country"—to me those words suggest excitement and adventure. Here is a blank space on the map. Here is a region yet unexplored.

The wonder of "The Undiscovered Country" is that it is not far away—but right next door to where you live.

When I was fourteen years old my father died and I went to live with my grandparents, fifty miles away from the lake and the woods which I loved so much. The country round about was taken up in farms and orchards. There seemed to be no place for a boy to roam. Then one day I discovered the ravine with its creek and woods only a mile or two away. You wouldn't know it was there. This was undiscovered country—right next door.

So it is in life. Don't look far away to distant horizons. Look around you. The adventure of The Undiscovered Country always lies close at hand. It may be for you—quietness deliberately sought. It may be the Bible. It may be your failures. (This is surprising isn't it?) It may be "others." It may be one or more of a dozen things, but whatever it is, your Undiscovered Country always lies right next door.

Suggested Scriptures:—Ephesians II 19-end. Deuteronomy XXXIV.

The Difference:

Sooner or later, in speaking or writing, I must tell this story. A friend of mine was the eye witness who passed it on to me.

He was at a restaurant with a friend of his. They noticed an old man sweeping the floor. They noticed him because he swept so slowly and he looked so sad.

Finally my friend's friend went over to the old man and whispered something to him. There was an immediate change. The old fellow was smiling now. Very shortly he began to whistle, he wielded the broom with new vigor.

My friend was astonished and asked his companion what he had said which could make such a difference.

The other man considered for a moment and then he spoke very quietly—"I simply said to him—Jesus told me to tell you, He loves you."

Suggested Scripture: St. John X 1-18.

Nothing Less Than The Kingdom

There is one parable which offends our sense of fair play. You remember the one about the man who had a vineyard. The grapes ripened all at once and early in the morning he went to the market place to hire help. Those who were hired agreed to a certain day's wage. (The Bible says—"a penny," but we shouldn't think of it in terms of our present day pennies. The point is that it was a fair day's wage.)

As the day drew on the anxious proprietor went looking for men again and again. He hired extra hands at various intervals all through the day, and even with one hour of daylight left he took on a few more whom he found idle in the market place.

At the end of the day the men lined up to receive their wages. The last to come were paid first. The men who had worked all day were surprised to see that those who had only worked one hour received a full day's wage. They were encouraged to believe that they would receive a bonus when their turn came. They did not. "They received every man a penny,"—the agreed day's wage.

Naturally they were indignant. Our sympathies may be with them. We forget that Jesus began by saying that his story was about the Kingdom of Heaven.

What He is telling us is that we could not possibly have MORE than the Kingdom of Heaven—"the day's wage" and that God will not give us LESS than the Kingdom of Heaven.

Suggested Scripture: St. Matthew XX 1-16.

Home and Family

The Country Guide's Magazine for Farm Women

Change Is Becoming

TEACHING agricultural practise in the classroom (Farm Training for the Unemployed, page 15) was a new experience for Lloyd McRae. But good farming and trying something new are the custom at the McRae farm home near Bainsville in Ontario's Glengarry County.

From one built for them at their marriage, the McRaes moved to the family home 7 years ago to care for Lloyd's aging parents, now gone. Five McRaes still call it home. Son Ron joined his dad in partnership after graduation from Kemptville Agricultural School. Wendy, in nurses' training in nearby Cornwall, returns when she's off duty. Colleen, the youngest, wrote Grade 13 examinations in June. She's working for the summer in a tourist bureau office a few miles down the highway; this fall she enters teachers' college in Ottawa.

The McRaes pool their skills, interests and enthusiasms, so it was natural that everyone take a hand in the remodeling they've done to the house. They have cause to be as proud of it as of their other family and farm achievements.

A NEW kitchen addition is the only structural change they have made in the house. Working out their own plans from books on kitchen planning, the McRaes built an "el" out from the old kitchen. Here, in a U-shape quite separate from any through traffic from outdoors, are the cabinets, sink, refrigerator, wall oven and countertop elements. The old kitchen and pantry now accommodate an eating area; large freezer, washer and dryer; a closet for outdoor clothes; and a downstairs washroom.

For easier heating, the McRaes lowered the ceiling in the old kitchen area to match the new, and installed an oil burner to do the job. "It's been very nice, being able to heat just part of the house," Mrs. McRae says. A wood-burning furnace gave hot water heat through the other rooms. Last spring they converted it to oil as well.

New brickwork done for the addition showed the old bricks up. Sandblasting renewed them and freshened the exterior. The McRaes feel that work on the house is well worthwhile because it was so sturdily built originally. Its only cracks were caused by an earthquake whose tremors shook the district in 1943.

While the kitchen construction was underway, the stove was hooked up in the dining room and food was prepared there. Just before Christmas last year, the McRaes started to work on the dining room itself. First they sanded the dark floors. Original burlap, applied part way up the walls beneath oak stripping, had faded badly with the years and it needed brightening too.

"I didn't know whether it would take paint or not," Mrs. McRae admits. "We tried a small bit behind the buffet where it wouldn't show if it wasn't satisfactory. But the latex paint worked beautifully, covering the old color but keeping the texture."

Next, the McRaes set out to refinish the massive old dining room table and its eight extension leaves. After stripping the finish, Mrs. McRae applied a mixture of equal parts boiled linseed oil, turpentine, and a good spar varnish. This she rubbed in with a cloth, let dry, then sanded and rubbed again with the mixture. "With the first coat, the grain just jumped out at us!" she laughs. So far the new finish has lived up to her expectations: it has resisted heat and water marks.

IN December last year, Mr. McRae suffered a coronary. During his convalescence he helped his wife re-cover the library chestfield. They chose a green fabric, matching it with the paint they used on the walls after removing paper above the burlap and oak dado. It's a soft green that blends with the new cream paint used here too on the burlap.

The doors on a built-in bookcase gave Mrs. McRae another idea. Over vigorous family protests, she removed them "just to see how it would look." Once off, the rest of the family agreed they too preferred open bookshelves. The doors were not entirely lost. Combined effort transformed one into a handsome coffee table. First they refinished the door as the

(Please turn overleaf)

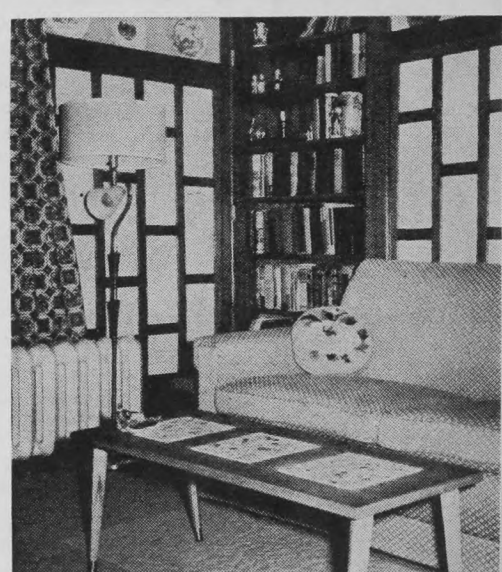
Remodeling the McRaes' big brick house was a family affair

by GWEN LESLIE



[Guide photos]

Mosaic ties fitted in 3 cement panels face the smart new coffee table, once a door on the library bookshelves shown in center. Green carpeting of man-made fiber laid wall-to-wall in library and living room has proven serviceable.



Colleen changed from tourist bureau uniform to casual clothes to practice milking for the dairy princess competition. She won next day at the Maxwell Fair, where she was crowned 150th Anniversary Queen last year.



The McRaes' silver tea service is one of trophies won in 2 years of showing cattle.

dining room table had been done. Four table legs, purchased unfinished, were given the same oil, turpentine and varnish rub. Wendy picked out ceramic tiles in a craft shop in Montreal and they cemented these in three panels on the table top.

MRS. McRAE made new drapes for the library, as she did for the living room and kitchen. For the library she chose a Pennsylvania Dutch print on a soft yellow background. For the living room, repapered with a gold and white medallion pattern, she chose a bittersweet shade of textured antique

satin. In the kitchen she used a special kitchen print.

Both daughters share their mother's sewing skill. All three sew most of their own clothes. When Mrs. McRae took five boarders from a road construction crew working nearby this spring, she had in mind a new sewing machine to replace one kept handy in a kitchen corner. The sewing must be fitted into an already busy schedule.

There's no shortage of projects at Wenron Farm. Some are farm and some are home . . . and all are a family affair for the Lloyd McRaes. V

For Safety's Sake

EACH year some of Canada's children are rushed to doctors or hospitals to be treated for poisoning of one kind or another. Each year some of these children die. Isn't this reason enough to observe some simple rules to minimize this danger? This means locked cabinets for medicines; locked storage in basement, garage or workshop for sprays and insecticides; high shelves for cleaning fluids, polishes, bleaches and similar housecleaning aids.

For safety's sake:

1. Keep medicines safely out of children's reach.
2. Read labels carefully before taking or giving medicine.
3. Empty unlabeled containers into the toilet and flush contents away.
4. Discard the surplus from prescription bottles that are no longer needed.
5. Never give children medicine that was prescribed for someone else.
6. Never take medicines or tablets in front of children.
7. Teach children to regard medicine as such and not as "candy."

Where do you keep these medicines?

Aspirin
Sleeping pills

Tranquilizers
Cough medicines
Iron pills
Oil of wintergreen
Heart pills

These medicines are valuable when they are used correctly and in recommended doses. They can be poisonous when taken in excess. This is reason enough to keep them in a locked cabinet.

Where do you keep these substances?

Lye
Oven cleaner
Floor wax
Liquid floor polish
Turpentine
Gasoline
Lighter fluid
Fuel oil
Solvent
Insect spray
Rat and mouse killer
Dishwasher detergent
Spot remover
Antifreeze

Each of these substances can poison, if not kill, your child. Be sure they are always in a safe place where he cannot reach them — in locked storage in basement, garage or workshop, at least on high shelves out of reach of adventurous youngsters. V

Meat Measure

WHILE it is obvious that meat consisting of bones and other wastes is not "all meat," this fact is often overlooked. According to L. H. Arnold, supervisor of Alberta's Frozen Food Locker Plants, people frequently fail to realize that a loss of weight always occurs when an animal is slaughtered and dressed and when the carcass is cut into table pieces.

For example, a choice beef animal will lose 45 to 50 per cent of its original weight when slaughtered. The removal of bones, offal, blood, etc., is responsible for this weight loss. There is also a slight shrinkage loss when the carcass is chilled and aged. When the carcass is cut into table-ready cuts, the processing loss amounts to approximately another 12 per cent of the original carcass weight. Customers who request a large amount of ground beef and boneless stew meat would have a still higher percentage of loss due to extra boning and trimming.

Mr. Arnold gives the following

chart for home freezer owners who buy beef, pork, veal or lamb by the carcass or side so that they will have a general idea of the weight losses to expect.

Beef

- Slaughtering loss of 42 to 50 per cent.
- Shrinkage loss of 2 to 3 per cent in chilling of carcass.
- Loss from trimming and cutting 12 to 15 per cent.

Pork

- Slaughtering loss of 22 to 28 per cent.
- Trimming and cutting loss of 20 to 22 per cent.

Veal

- Slaughtering loss of approximately 45 per cent.
- Trimming and cutting loss of approximately 10 per cent.

Lamb

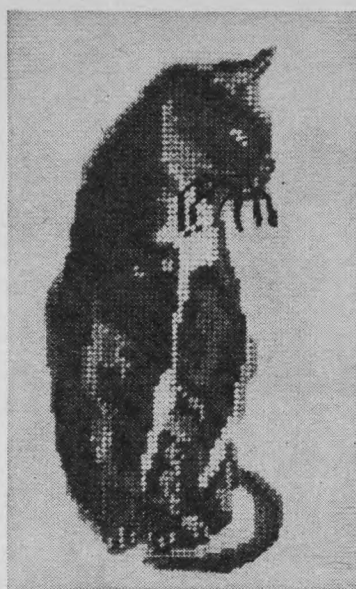
- Slaughtering loss of 50 to 55 per cent.
- Trimming and cutting loss of approximately 5 per cent. V

HANDICRAFTS

Needlepoint

Kits by Jean McIntosh contain all the materials needed for one picture. The pictures are worked from a graph chart included in the kit; designs are not stamped or pre-worked on the canvas.

M-10. Chinese Cat, is worked in warm shades of brown. Petit point kits in 2-thread and 3-thread cost \$1.25. Wool kit, \$2.50, includes blue background wool. Chart without yarn 35¢.

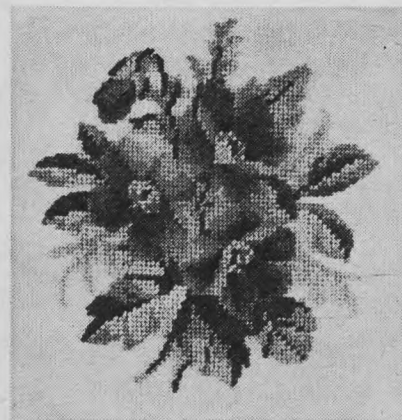


M-135. Wild flowers star in a summer mountain scene. Petit point 2-thread picture measures 4" by 5 1/3"; 3-thread, 5" by 6 1/2". Kits \$3.50 each.

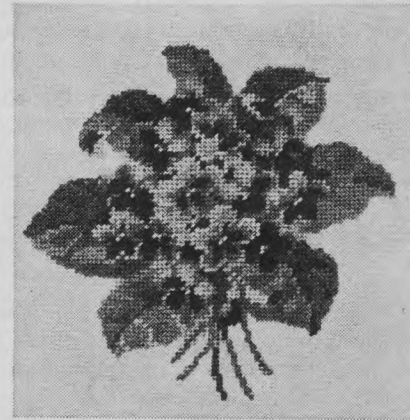
Wool picture measures 11" by 14 1/2". Wool kit costs \$5.75. The chart may be ordered without yarn or canvas for 75¢.



M-179. Pinkie, adapted from the Thomas Lawrence painting, may be worked in cotton, or in wool with a combination of petit point and needlepoint stitches. A 6-strand cotton kit, \$8, makes a picture 10" by 14". Wool picture measures 14" by 19"; kit price \$9.50. Chart may be ordered alone, without canvas or yarn, for \$1.50. This picture is a mate to Blue Boy.



M-105. A small spray of red poppies is 2 3/4" sq. in 2-thread petit point, 3 1/4" sq. in 3-thread. Kits \$1.35.



M-106. A small spray of violets is a mate to poppy picture at left (same sizes). Kits \$1.35. Chart alone 35¢.

For handicraft patterns pictured above please address your order to The Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

Generous use of glass gives the Gattey house a panoramic view of its scenic surroundings

Six Bedrooms and a Solarium Too

by **ELVA FLETCHER**
Home Editor

IN the Gooseberry Lake district of east central Alberta the grass is long and well-watered. That was the reason Albert Gattey chose to homestead there in 1910 and make a start on the present-day Cross Bar Ranch. Today his son, Frank, his wife, Kelva, and their family of four can still see mile-long Gooseberry Lake. Beyond, cascading coulees rise into the Neutral Hills where the long grass grows as it did in his time.

New families eventually need new homes. When Kelva and Frank decided to build theirs, they took their ideas to an architect friend, Jack Annett, of Edmonton. Their ideas plus Jack's professional advice produced a 6-bedroom split level design adapted to their family needs and suited to the slopes and scenic beauty of the nearby Neutral Hills and to ranch hospitality.

The Gatteys needed six bedrooms. They have four children — 5-year-old John and his three sisters, Diane, Lynn and Joan—whose ages range between 8 and 13. And their overnight hospitality extends to large numbers of friends and visitors during the course of a year.

Theirs is a ranch house with many special features. One of the most pleasing of these is the liberal use of glass. For example, full length sliding glass doors lead from the living room onto the outside gallery that girdles the upper level on three sides. Similar glass doors lead outdoors from the lower level playroom. Windows on the south reach up and follow the roof line.

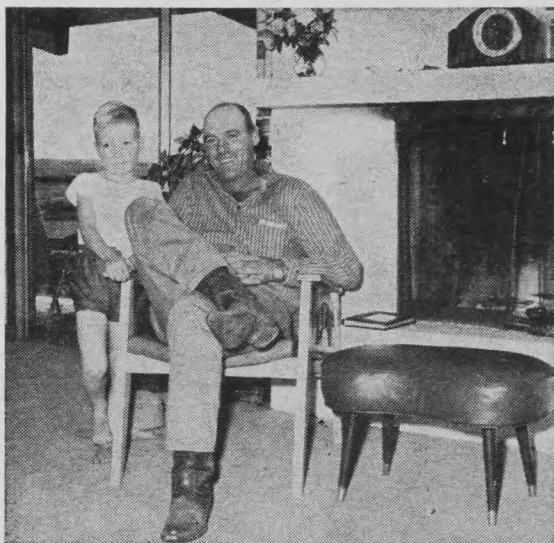
More glass appears in the utility room. A skylight makes this inner room "the brightest room in the house any day of the year" according to Kelva. The Gatteys also used glass fronts in the built-in cupboards in their dining room.

Another unusual feature is the solarium, which is open to the living room. Kelva has a small indoor garden here. She grows tomatoes and herbs all year round and there are likely to be some flowers, brought in from last year's garden.

The Gatteys' living room is big, comfortably so, and it's well used by the family and the many visitors to the ranch. The open-beam ceiling gives a feeling of airiness. Cedar and grasscloth wall coverings harmonize pleasantly. By contrast, each of the doors on the upper level is a different color—"A modern touch," smiles Kelva.

There's an "old west" flavor to be seen in the tan and green leather chesterfields and chairs embossed with Western designs and in the beautifully beaded Indian saddle of soft deerskin, a family treasure from Canada's past, that hangs on one wall.

Kelva points out that they did make a number of changes in the original house plan. The living-room fireplace is one example. It was only after several conferences among family and friends that they eventually decided on its present



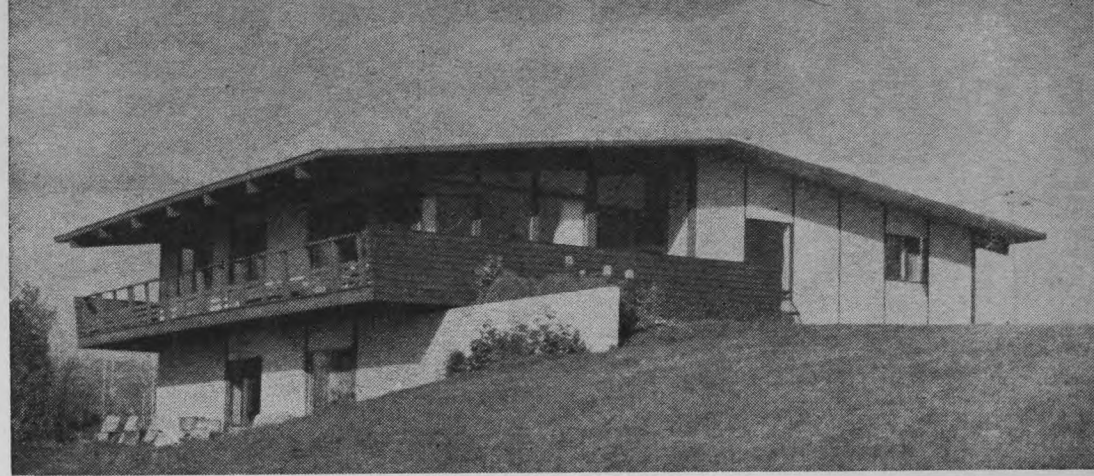
[Guide photos]
The Gattey youngsters all ride, including young John shown here with his father. Kelva rides too.

location on the west wall. This fireplace is duplicated in the lower level playroom. Field stone was their first choice for the fireplace. In the end they decided to use cement blocks painted white. While the cement block construction did represent a compromise, they're more than satisfied with their choice now that they have lived with it for 3 years.

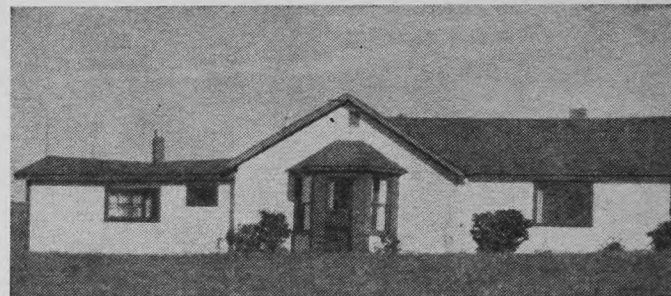
In the original plan the utility room was on the lower level, and so quite separate from the kitchen. Kelva changed this. Now the utility room

RIGHT: The dining room has special features too. They include the kitchen pass-through, free-of-floor cupboards.

BELOW: Kelva's indoor garden is a hobby. A large outdoor vegetable garden feeds family, friends, helps fill the freezer.



Styles in ranch houses change too. The young Frank Gatteys of Consort, Alta., built this attractive home in 1960. The old ranch house, below, retains its own brand of dignity.



—housing washer, dryer, sewing machine and other utility room equipment—is adjacent to the kitchen. This is a much better arrangement, according to Kelva, for it eliminates steps up and downstairs.

For Kelva's kitchen, with its co-ordinated metal cupboards and counters, the Gatteys got the largest matching dishwasher they could find. A counter separates the kitchen from the breakfast room. Kelva made only one small change in the kitchen plan, one that Frank particularly enjoys. In this change the chopping board was moved from the stove area to the end of the counter between the kitchen and breakfast room areas. When Frank carves, he frequently uses this board. "This puts me out of Kelva's way when she's putting the finishing touches to a meal," he says.

Kelva and Frank gave special thought to floor coverings for their home, particularly those for the living room, kitchen and solarium.

In the beginning Kelva was reluctant to lay broadloom in the living room. She had misgivings about its wear and care qualities in relation to the amount of traffic it would bear. Almost reluctantly, they decided to experiment with it, using a soft green shade. After 3 years of constant use, it has exceeded their expectations in both respects. They are equally pleased with their experimental use of the plastic-finished cork tile used for the kitchen and solarium floors.

Alfred Gattey, in his time, built his home of logs in the style of homesteading days. It is still in use, its exterior smoothed over by a white siding cover. Kelva and Frank, of course, turned to present-day style and materials for their new home. Today, old and new blend pleasingly into the soft slopes that surround them.

Tugboat Matilda

by JONQUIL TREVOR

THERE was once a small tugboat called Matilda. She was a grubby, cheeky little craft, and she used to potter around the coast, sometimes making herself useful, and sometimes getting in everybody's way.

One misty August morning she was fussing down the river, thinking she would sneak off for a few hours' fun in the open sea.

"Rivers are all *right*," murmured Matilda, "but give me the wide blue ocean every time."

"What — *all* of it?" demanded a loud, angry voice, and Matilda looked ahead to see a great liner looming through the mist.

"Bless my barnacles!" gasped the little tug, and began ringing a lot of bells and turning a lot of wheels trying to get out of the liner's way.

But it was too late. There was a horrid crashing sound as Matilda bumped into the big boat, and sent it sliding across the river, right onto a sand bank.

"Now look what you've done!" called the big ship, and went very red about its four funnels. "Of all the clumsy . . ."

"Goodness!" whispered the tug. "What on earth can I do now?"

"Clear off!" roared the liner rudely as she began pushing and heaving against the bank. "I'll manage without your help."

"Very sorry, I'm sure," muttered

the little tug and she went off down the river with a sad toot on her siren.

All that day Matilda steamed along the colorful coastline, very sad about the accident but much too frightened to go home. At last, as the lights on the land began twinkling through the fog, Matilda nosed her way back to port.

But there were no nasty remarks from the other boats when Matilda crept round the bend of the bay. They were all *much* too busy, clustered about the giant liner, pushing, nudging, heaving, prodding and pummelling — yachts and cutters, coasters and tankers, every sizeable ship for miles around.

"What's happening?" Matilda asked of a rowboat that was rocking gently on the tide (although she knew perfectly well what the fuss was about).

"Been trying all day to push the liner off," said the dinghy. "Looks as though it'll have to stay there all night. Now if they asked *my* advice, I'd say—Hey, where are you off to?"

Because Matilda had suddenly gone full-steam-ahead, smoke swirling from her single funnel, waves breaking against her beams, and a lot of rattling and chugging coming from her small and busy engine.

"Here I come!" called the little tug cheerfully. "I pushed you on the bank, so I'll get you off. Make way, there! Shiver my timbers and slap



my slings, it takes a *tug* to do these things!"

The coasters and tankers, the cutters and yachts all stopped their panting for a moment; but the liner, hearing the gay voice of Matilda, sent up a nasty growl.

"When I want your help," it called above the noise of the tug's engine, "I'll ask for it! If only you'd been looking where you were going, *this* wouldn't have happened!"

But for the second time that day, Matilda was in trouble. She nosed her way at great speed up the river, so anxious to reach the liner that she couldn't stop.

"Whoa there!" the little tug called to her engine. "Steady, now. Half-speed does it. Nice and easy!"

There was a big bump, and Matilda went straight into the cluster of ships. She sent the first one knocking into the second, and the third into the fourth until, in a couple of shakes, the whole fleet was sliding and slithering, and nothing could stop them.

In the general confusion, they pushed the giant liner right off the bank, and back onto the river.

"Phew!" said a sailing yacht. "That was a clever bit of work."

"Ve-ery nice," said a dirty old oil tanker with a wink from its star-board light. "Oh well, I must be off." And one by one, the boats left the liner and the tug alone on the dark water, and went steaming off into the night.

"Why in the world you couldn't have done that in the first place," grunted the great vessel.

"Begging your pardon," Matilda said in a rather small voice, "but you told me to—er—clear off."

"So I did," said the liner. "My fault entirely."

"Not at all," the young tug said politely. "I really was *extremely* clumsy."

"I wouldn't say that *exactly*," called the giant as it began to move away. And the incident ended with both boats on the very best of terms.

So these days, when the liner comes steaming proudly in from the sea that stretches to America and back, the first thing it does is give a friendly hoot to Matilda.

"Hi, Tilder!" it booms. "How's the tug business these days?"

Grubby little Matilda grins.

"Going ahead nicely," she pipes, moving over to make more room. ✓



Five Steps to Life

SWIMMING is a favorite summer sport with most young people. But sometimes the unexpected happens and a drowning swimmer calls for help. Could you pull him to shore and give him artificial respiration?

Canada's Red Cross has adopted the mouth-to-mouth "rescue breathing" technique. Doctors and nurses recommend it too. Used at lakes and beaches, it has already saved hundreds of lives. And it can be just as useful at home in an emergency.

The mouth-to-mouth method is simple. It is based on the principle of blowing your breath into the lungs of the victim until his natural breathing is restored.

To revive a person by the mouth-to-mouth method of artificial respiration you need to work quickly. Seconds count. Don't take time to move him. Place him on his back. Turn his head to one side to clear his throat of mucus, water or food. Then, follow these steps to restore breathing.

Branches of the Red Cross have printed instructions on a wallet-size card. You can get a copy from your provincial Red Cross Center.



Step 1: Lift neck and tilt head fully back. Tilting opens the victim's air passage. His mouth will usually open. If it doesn't, don't worry. Air can be blown through clenched teeth or through the nose. Maintain this position with the heel of the hand on the forehead.



Step 2: Pull the victim's jaw upward or push into a jutting-out position to free the air passage. Pull his chin and pinch his nostrils shut with fingers to prevent air from escaping.

Step 3: Open your mouth wide. Then seal your lips around victim's mouth and blow. If the victim is a small child, place your mouth over both nose and mouth.

Step 4: Inflate lungs by blowing through mouth or nose (or both, if a small child). Blow until you see the chest lift. If the victim's jaw locks, hold lips closed and blow through the nose.

Step 5: Remove your mouth. Release nostrils, and watch for the chest to fall. Repeat steps 3 and 4 continuously — at the rate of 12 to 18 times per minute. For a child, make shallow, gentle breaths at 20 per minute.

Continue until normal breathing is restored. ✓

Fashion Forecast

Nature Calls the Color Tune

- *the shift is wintering with us*
- *the waistline wanders, hems hold the line*
- *daytime wear is casual—easy-fitting—sportive*
- *toward evening, skirts lengthen to feminine ankles*

FALL and winter fashions preview the magnificence of autumn out of doors. Pumpkin, mallard, moss and mustard suggest the natural source of the featured colors. In keeping with this natural theme, the styling is casual and easy. Designers describe fashion's mood as "sportive." Daytime wear expresses this in shirt, skirt and vest combinations. Toward the end of day, the emphasis is on elegance in fabrics and in skirts which sweep to ankle and floor lengths.

They're calling it a rustic season in the fashion field. The examples we've seen don't look like country living as we know it, but for the most part, the styles are wearable and flattering to many women. No single figure type dominates; which is reassuring to those of us with shoulders, bosoms and hips. The vast selection of featured fabrics allows fluffy mohairs for the slight, crisper fabrics for the not-so-slight.

THE SILHOUETTE

The figure-skimming shift introduced last spring has been given some subtle seaming for fall. The waistline wanders . . . most often up . . . to Empire emphasis. Slight A-flares, pleats and wrap designs give ease to skirts. The hem length holds the line at just below the knee.

There's a clean dashing line to tweedy separates. The pullover-type top is popular, but the tailoring is crisp in waistcoats, vests, ascots and mannish shirts. A new breed of jacket may match or not; most are straight cut, although some have front waistline shaping. The sweater jacket carries out the sporty theme. One type looks like a pullover.

The long skirt takes over after dark in elegant fabrics for special occasions and homier ones for the hearthside.

THE FABRICS

In color and texture, the fashionable fabrics are rich and lovely with surface interest that catches the eye. The patterns are wonderfully varied. They range from stunning big diagonals to small Americana prints. Plaids, herringbones, madras and island-inspired batiks fall somewhere in between. Striped fabrics include the pin, chalk and regimental versions.

THE COLORS

Each season, a few colors are singled out for high-fashion promotion. A very off-beat color may date a garment in your wardrobe. On the

TWO FASHIONS FOR FALL

Butterick pattern No. 2849 illustrates the casual sportive styling for fall. The long-sleeved, notched-collared coat may be shortened to jacket length for suit wear with fitted weskit and straight skirt. Weskit shown in cotton suede. Skirt has kick pleat. Miss sizes 10, 12, 14, 16, 18; 70¢.

Two quick 'n easy patterns make this cosy costume of wool jersey and woven plaid. No. 2813 offers a ¾ sleeve blouse with draped neckline (variations of sleeves and neckline included). Miss sizes 10, 12, 14, 16, 18; 60¢. Skirt pattern No. 2811 features deep panel pleats and pockets at front. Waist sizes 24, 25, 26, 28 and 30; 60¢.

other hand, if the color and the garment become you, that isn't too important.

The high fashion colors to be given a good deal of promotion this year include a vintage selection of winter wines to which the names eggplant, winter violet, and magenta have been given. Also featured are five sophisticated greens: olive, moss, mustard, breen (a blend of green and brown, neither one nor the other) and emerald. The high fashion neutral is a blackened brown.

Listed as popular colors for the fall-winter months are warm and lively rusty-browns, called red fox, tortoise, copper, vicuna, camel and pumpkin. Expect the depth of the tile blues to highlight your own coloring. These include bristol, mallard, royal and indigo. The Spanish reds cast a glow all about them. Choose from garnet, berry and orange hues.

Black is back for evening, but it's a sparkling black. The sparkle may be in the fabric itself, or it may be the product of combining black with an exciting brightness of contrasting color. Also offered for after-dark hours are matings of bright hues with melting pastels in the same color family.

In a more gentle mood, there's a pleasing range in neutral tones. Cream white, more flattering than a white that's starkly bright, can be found in a variety of fabrics. Taupe tones and soft-as-a-whisper, pale, pearl gray shadow into stronger shades. A little warmer is the soft loveliness of pale green. And last of all, you'll see the harvest season echoed in antique gold. V



2849



2813-2811

SOME people choose to holiday at home. Others choose lakes and beaches. A few, like Gayle and Gil Udyecz, of Davidson, Sask., are lucky enough to win themselves a 2-week all-expense Hawaiian Islands holiday.

"It seems ridiculous now," Gayle laughs. "But when Gil telephoned me at the office one day last January to tell me he'd won The Country Guide 'Holiday in Hawaii' contest, we were busy. I told him I couldn't take time to talk to him. When I realized what he'd said, I really got excited."

Gil Udyecz works at the local co-op store but his main interest is the half section farm that he rents from his father. The trip came at just the right time so far as he was concerned because he was back home in time for seeding. Gayle works at the dentist's office.

"We did all the conventional things," Gayle and Gil say, "and we

Both were deeply touched by the war-scarred hulks in Pearl Harbor which remain as present-day war memorials.

Both Gayle and Gil found it easy to slip into the carefree life that is typical of the Islands. "You dress for comfort there," Gayle points out, "and the climate is comfortable. But Gil wouldn't let me wear a muu-muu," she teased. "And while I took several hula lessons, Gil stopped at one."

For Gayle and Gil Hawaii was an adventure in new and different eating habits. For one thing, they laughingly admit to breakfasting on pineapple and pancakes every morning. They delighted in tasting the Hawaiian equivalent of a Western barbecue — pig roasted in an underground oven. They savored chicken cooked in ti leaves and fish baked in a pastry cover. Most of all they enjoyed the fish cookery. Adding eye-catching color and taste-bud pleasure were



Gayle and Gil Udyecz recommend Hawaii for a holiday. They got there by winning a contest.

Holiday in Hawaii

really enjoyed them." For example, one tour in their holiday package took them around the outer edge of the island of Oahu. Known as the Circle Island tour, it was the most impressive of all, according to Gayle.

"We loved the long stretches of sun-drenched beach that meet your eyes all along the road, the exotic trees and flowers, the sound of the surf. We saw unusual buildings, including Buddhist and Mormon temples. One day we visited Robert Louis Stevenson's grass hut."

For Gil, tour highlights were stops at pineapple plantations along the way. "I was fascinated by the intensity of their production and the efficiency of their harvesting equipment," he says. Both he and Gayle became so interested in the product they visited a pineapple cannery.

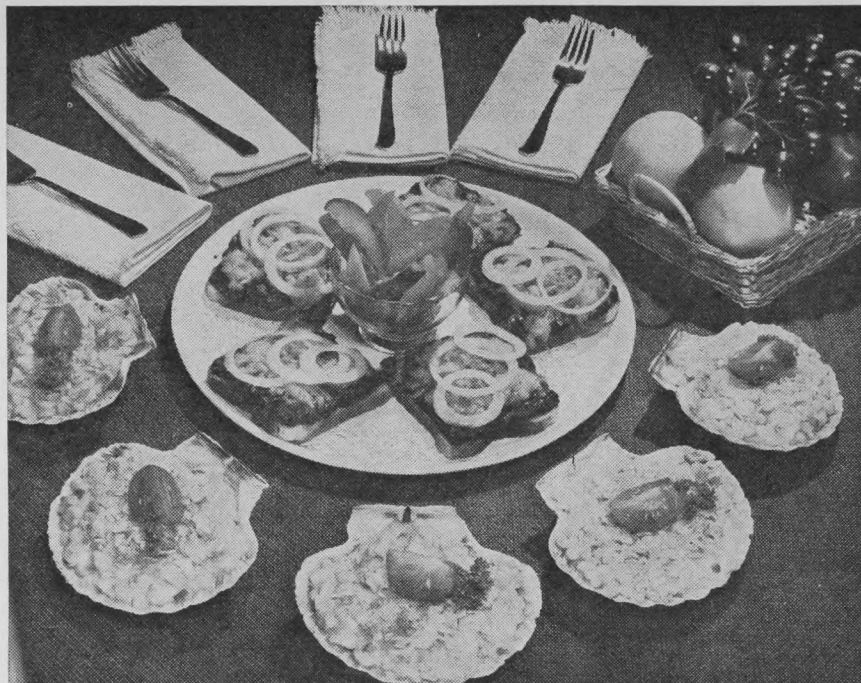
"We thought of home briefly," Gil says, "when we realized that the pineapple plantations represented the only clear country we had seen."

fruits in abundance — pineapple, papaya, bananas and many others — served in the piece or in punches.

Womanlike, Gayle enjoyed the markets, particularly the huge Ala Moana shopping center with its store at two levels (street and underground) and the international market at Waikiki.

Then, for the last few days of their holiday, they rented a car. "It was something of a luxury," Gil says, "but we decided it was worth it. We may never get back. This way we could return to places of special interest and see other areas we missed on earlier tours."

Back home at Davidson, Gayle and Gil say their holiday in Hawaii is almost like a dream. Actually it is as close to them as the colored slides on which Gil captured the Islands' blue waters and white sands, palm and monkey pod trees, bright red flowering hedges and flamboyant hibiscus blossoms.—E.F. V



Quick and easy pizzaburgers served with pickles, deviled corn and a fresh fruit centerpiece that doubles as dessert make a "special" sandwich supper.

IN THE KITCHEN

by GWEN LESLIE
Food Editor

Sandwich Specials

THE combinations of breads and fillings for sandwiches are so many and so varied, you could surely serve a different one every day of the month. What could be a better time to try it than August, during Sandwich Month?

Why not build light meals around your own "chef's special" sandwich plate? The broil or bake, open-face sandwiches are particularly attractive. Raw vegetable strips or salads or a casserole such as zesty Deviled Corn round out the main course.

Pizzaburgers

- | | |
|--------------------------------|------------------------------|
| 1 lb. ground beef | 8 slices white bread |
| 3/4 c. canned sliced mushrooms | 1/2 c. catsup |
| 1/2 tsp. salt | 1 c. shredded cheddar cheese |
| 1/4 tsp. pepper | Oregano |
| 1 tsp. onion salt | Butter |
| | Onion rings |

Break meat up with a fork. Mix in mushrooms, salt, pepper and onion salt. Toast bread slices on one side under the broiler; turn over, and butter untoasted side. Spread beef mixture thinly on buttered side. Broil for 5 minutes. Spread catsup over meat and sprinkle with grated cheese and oregano. Return to broiler and broil until cheese is bubbly. Top with onion rings and serve.

Deviled Corn

- | | |
|-------------------------------|------------------------------|
| 2 T. butter | 1/4 c. diced green pepper |
| 2 T. flour | 1/4 c. chopped onion |
| 1 tsp. dry mustard | 1/2 tsp. salt |
| 1/2 tsp. Worcestershire sauce | 14-oz. can whole kernel corn |
| 1/4 tsp. pepper | 1/2 c. crushed potato chips |
| 1 c. milk | |
| 1/2 c. bread cubes | |

Melt butter in a large, heavy saucepan. Blend in flour and seasonings. Gradually stir in milk, and cook, stirring constantly, until smoothly thickened. Stir in bread cubes and vegetables. Spoon into a greased 1-qt. casserole or into individual baking dishes. Sprinkle with crushed potato chips and bake in a moderately hot oven at 375° F. for 25 to 30 minutes. Garnish with tomato wedges and parsley sprigs. Serves 5.

Note: Leftover corn on the cob could be used up this way.

Cheese Marmalade Squares

- | | |
|--|---|
| 6 slices whole wheat bread, 1/2" thick | Orange marmalade |
| Soft butter | 6 slices process cheese, 3 1/2" squares |

Preheat oven to 400° F. (hot). Remove crusts from bread. Spread slices with butter and then with marmalade. Top each slice with a square of cheese. Arrange slices on an ungreased cookie sheet. Bake in preheated oven until heated through and cheese is melted. Serve at once with a tossed salad.

Bacon and Mushroom Squares

- | | |
|----------------------------------|---|
| 3 slices side bacon | Soft butter |
| 6 slices white bread, 1/2" thick | 10-oz. can undiluted condensed cream of mushroom soup |

Preheat oven to 400° F. (hot). Fry bacon until crisp. Trim crusts from bread and spread slices with butter. Now spread generously with mushroom soup.

Crumble the crisp bacon and sprinkle over mushroom soup. Arrange squares on an ungreased cookie sheet. Bake in preheated oven until bread is toasted and topping is bubbly. Serve at once with coleslaw.

Salmon Rounds

- | | |
|------------------------------------|------------------------------------|
| 1/2 lb. can salmon | Mayonnaise |
| 1/4 c. finely chopped celery | Salt and pepper |
| 1 T. chopped sweet gherkin pickles | 6 or 12 slices crusty French bread |
| | Soft butter |

Preheat oven to 400° F. (hot). Drain and flake salmon, discarding skin and mashing bones. Add chopped celery and gherkins. Moisten with mayonnaise or other thick dressing, and season with salt and pepper to taste.

Cut 6 or 12 slices of French bread, depending on the size of the loaf. Spread slices with butter, then with salmon mixture. Arrange on an ungreased cookie sheet and bake in preheated oven about 10 minutes, or until heated through. Serve hot with a lemon garnish and a salad of lettuce with French dressing. V

Plum' Delicious!

FOR a change of pace near summer's end, make dessert the hot dish on the supper table. Use the saucy-sharp flavor and rich, deep color of plums to accent your choice of batter or dough.

Plum Kuchen is made with a no-knead, batter-type, sweet yeast dough. Honey and cinnamon flatter the flavor of plum wedges arranged on top. Blue Plum Strata sandwiches a layer of plum pieces between two of biscuit dough. Serve it warm as pudding—any leftovers may be sliced and buttered to serve with coffee! Sweetened plums are baked again under a lightly spiced cake batter for a "plum' delicious" Cobbler.

Fresh Plum Cobbler

- | | |
|---|-----------------------------|
| 1 doz. ripe plums | 2 tsp. baking powder |
| $\frac{3}{4}$ c. sugar | 1 tsp. ground cinnamon |
| 1 c. sifted all-purpose flour or 1 c. plus 3 T. sifted pastry flour | $\frac{1}{4}$ c. shortening |
| $\frac{1}{2}$ tsp. salt | 1 egg |
| | $\frac{2}{3}$ c. milk |
| | $\frac{1}{4}$ tsp. vanilla |

Preheat oven to moderate temperature of 350° F. Wash, halve and pit plums. Arrange in a greased 6-cup baking dish. Sprinkle fruit with the $\frac{3}{4}$ cup sugar; mix well. Cover dish and heat in oven while preparing the batter.

Sift together 3 times the flour, baking powder, salt and cinnamon. Cream the shortening; gradually blend in the $\frac{1}{2}$ cup sugar. Add egg and beat well. Combine milk and vanilla. Add sifted dry ingredients to the shortening mixture alternately with milk, stirring lightly after each addition. Turn batter carefully over the heated plums. Bake in a moderate oven 40 to 45 minutes. Serve warm with pouring cream. Yields about 6 servings.

Blue Plum Strata

- | | |
|--|-------------------------------------|
| 1 c. cut-up, pitted fresh blue plums | 4 tsp. baking powder |
| $\frac{1}{3}$ c. sugar | $\frac{1}{2}$ tsp. salt |
| 2 T. cornstarch | $\frac{1}{4}$ c. sugar |
| $1\frac{3}{4}$ c. sifted all-purpose flour or 2 c. sifted pastry flour | $1\frac{1}{2}$ tsp. ground cinnamon |
| | $\frac{1}{2}$ c. milk (about) |
| | $\frac{1}{4}$ c. vegetable oil |
| | $\frac{1}{4}$ tsp. vanilla |

Prepare and measure plums. Combine $\frac{1}{3}$ cup sugar with the cornstarch and

mix into plum pieces. Sift the measured sifted flour with baking powder, salt, 2 tablespoons of the sugar and $\frac{1}{2}$ teaspoon of the cinnamon into a bowl.

Combine milk, oil and vanilla. Make a well in the dry ingredients and pour in liquids. Mix lightly with a fork, adding milk if necessary to make a soft dough. Turn out on a lightly floured board and knead for 10 seconds. Divide dough in 2 equal portions; pat or roll each portion into an 8" square. Fit one square of dough into a greased 8" sq. cake pan. Stir plum mixture, then spread to within $\frac{1}{2}$ " of edges of the dough in pan. Cover with the second square of dough. Combine remaining 2 tablespoons sugar and 1 teaspoon cinnamon and sprinkle over top. Bake in a hot oven at 400° F. for 20 to 25 minutes. Serve warm with pouring or whipped cream. Yields 6 to 8 servings.

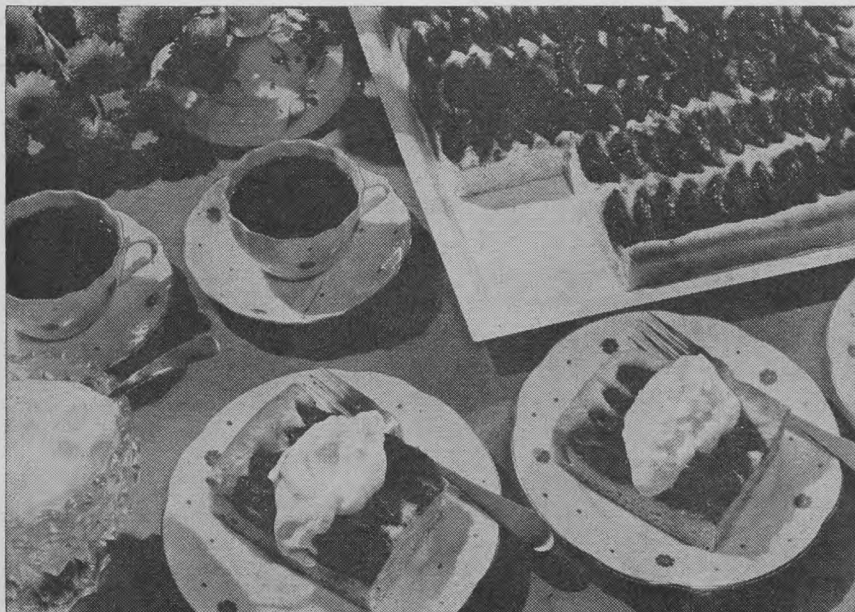
Plum Kuchen

- | | |
|---------------------------------|---|
| $\frac{2}{3}$ c. milk | 1 tsp. vanilla |
| $\frac{2}{3}$ c. sugar | $3\frac{1}{3}$ c. all-purpose flour (about) |
| $1\frac{1}{2}$ tsp. salt | $1\frac{1}{2}$ doz. ripe blue plums |
| $\frac{1}{2}$ c. shortening | $\frac{1}{4}$ c. liquid honey |
| $\frac{1}{2}$ c. lukewarm water | 1 tsp. ground cinnamon |
| 1 tsp. sugar | $\frac{1}{4}$ tsp. grated nutmeg |
| 1 pkg. active dry yeast | 1 T. butter |
| 2 eggs, well beaten | |

Scald milk; stir in the $\frac{2}{3}$ cup sugar, salt and shortening. Cool to lukewarm.

Meantime, measure lukewarm water into a large bowl; stir in the 1 teaspoon of sugar. Sprinkle water with yeast, let stand 10 minutes, then stir well. Stir in lukewarm milk mixture, well-beaten eggs, vanilla and flour (use enough flour to make a rather stiff batter). Beat until smooth and elastic. Turn batter into a greased 9" by 13" pan or two 8" sq. cake pans.

Wash and dry plums; cut in wedges, discarding pits. Arrange plum pieces in even rows over yeast batter. Drizzle liquid honey over fruit, then sprinkle with cinnamon and nutmeg. Dot with bits of the butter. Cover batter and let rise in a warm place, free from draft, until doubled in bulk—about 1 hour. Bake in a moderately hot oven at 375° F. allowing about 45 minutes for the large kuchen or 35 minutes for the smaller ones. Serve warm or cold with a dollop of whipped cream.—G.L. ✓



[J. Walter Thompson Co. Ltd. photo

Plums star in a plum kuchen. Serve squares warm or cold with whipped cream.



Glazed Butterscotch Swirls

When you bake at home use Fleischmann's Fast Rising Dry Yeast for results you can count on! Try this simple recipe yourself. You'll love these delicious Glazed Butterscotch Swirls.

GLAZED BUTTERSCOTCH SWIRLS

Yield: 27 Swirls

1. Scald $1\frac{1}{2}$ cups milk; stir in $\frac{1}{2}$ cup granulated sugar, 2 tsps. salt and $\frac{1}{2}$ cup shortening. Cool to lukewarm.

2. Measure $\frac{1}{2}$ cup lukewarm water into a large bowl. Stir in 2 tsps. granulated sugar and sprinkle with 2 envelopes Fleischmann's Fast Rising Dry Yeast. Let stand 10 mins., then stir well. Stir in lukewarm milk mixture, 2 well-beaten eggs and 3 cups pre-sifted all-purpose flour. Beat until smooth and elastic. Work in sufficient additional flour to make a soft dough—about $3\frac{1}{4}$ cups more. Knead dough on floured board until smooth and elastic. Place in greased bowl. Grease top. Cover. Let rise in warm place, free from draft, until doubled in bulk—about $1\frac{1}{4}$ hours.

3. Cream together $\frac{1}{2}$ cup butter or Blue Bonnet Margarine, $\frac{1}{2}$ cup corn syrup and 2 cups lightly-packed brown sugar. Spread half this mixture on bottom of 3

greased 8- or 9-inch square cake pans. (Mixture will not completely cover bottom of pans.)

4. Punch down dough. Turn out and knead until smooth. Divide into 3 equal portions. Roll out 1 portion into an $11\frac{1}{4}$ inch square; spread with $\frac{1}{3}$ of remaining brown sugar mixture. Roll up jelly-roll fashion; cut into nine, $1\frac{1}{4}$ inch slices. Arrange slices, a cut side up, in a prepared pan. Repeat with remaining portions of dough. Grease tops. Cover. Let rise until doubled in bulk—about 40 mins. Bake in preheated moderately hot oven (375°) 25 to 30 mins.

For full color recipe booklet—"When you bake—with Yeast", send 25¢ in coin or 10 empty Fleischmann's Yeast envelopes to:



STANDARD BRANDS LTD.,
Dept. F,
P.O. Box 517,
Montreal, Que.

CANADA PACKERS

Annual Report

The 36th year of Canada Packers Limited closed March 27th, 1963. I am pleased to report that new highs were established in respect of,—

Dollar Sales
Tonnage*
Net Profit.

The following is a summary of the year's operations:

Dollar Sales	\$589,014,000
Previous high — Fiscal 1960	\$575,892,000
Tonnage*	2,916,000,000 lb.
Previous high — Fiscal 1962	2,851,000,000 lb.
Net Profit	\$ 5,763,000
Previous high — Fiscal 1960	\$5,357,000

Net Profit expressed as a percentage
of sales was approximately 1.0%

*The tonnage figure corresponds to those in previous years' reports and represents pounds of product sold by the companies primarily engaged in the packinghouse business.

The Shareholders will be interested in an analysis of the Company's sales and profit, showing the broad divisions from which they arise:

	(1) All products derived from livestock	(2) Products derived from other farm raw materials	All other products	Sundry income and profits from disposal of fixed assets and investments
Sales	\$330,300,000	\$93,300,000	\$165,400,000	
Net Profit	\$ 1,431,000	\$ 796,000	\$ 3,230,000	\$428,000
Net Profit as percentage of sales	0.43%	0.85%	1.95%	

On all products derived from livestock the profit amounted to approximately 1/6¢ per pound of product sold, or approximately 1/8¢ per pound of livestock purchased.

This very narrow profit margin in the packinghouse business is a result of intense competition. The intensity of competition has increased during the past few years because of a degree of over-capacity in the industry caused by the construction of new plants which have added capacity at a faster rate than the growth of the total business. In the past five years ten substantial new meat packing plants have opened. One of these was our plant at Lethbridge, Alberta. Three of these plants began operation in 1962, and plans for a fourth have been announced.

It will take some years before the total meat industry grows sufficiently to require all of this new capacity. In the meantime, competition is bound to be very intense and profits will be available only to those firms which control their expenses very carefully and operate their plants efficiently.

These circumstances place a special immediate importance on innovation and efficiency, and in the long run will mean that the industry will emerge from its present position of over-capacity better able to process the producers' livestock at low cost and to economically serve the consumer.

(1) Includes all meat products and by-products, such as, hides, tallow, animal casings, etc.
(2) Includes dairy products, poultry, fruit and vegetable products, etc.

During the year the Company paid to Canadian livestock producers for their animals a total of \$261,000,000, or 79.1% of the amount received from the sale of all products derived from livestock.

Thus the producers' share of the wholesale selling price of the products derived from their livestock was 79.1%.

Despite the greatly increased extent of processing and packaging of meats (which has stimulated consumer demand), this percentage has remained remarkably constant for many years. This has been possible because a steady increase in efficiency of operations has offset the additional cost of increased processing and packaging and the steadily increasing cost of buildings, equipment and supplies which the company must purchase to conduct its business.

For the livestock producer 1962 was a good year. In total about 50 million extra pounds of meats and poultry were consumed in 1962 over 1961. Despite the increased consumption, for most of the year the price levels were well above the year before.

It is gratifying that meat continues to increase in popularity. Both the livestock producer and the packer can look with some confidence to the future.

During the past few years export sales have become a more important part of our business. Our Foreign Trade Division has grown steadily and this year export sales amounted to approximately \$30,000,000. This Division handles a wide range of products and trades in many foreign countries. As well as Canada Packers' products, they sell a wide variety of Canadian goods all over the world.

This year the Foreign Trade Division opened trading offices in London, England, and Hamburg, Germany. We look forward to expanding this area of our business and participating in the growth of Canada's export sales, which are so important to our present-day economy.

Another interesting facet of our business—the Fine Chemicals Division—has made important progress this year. This Division is concerned with valuable chemical products of biological origin and with related synthetic chemical products. They are important suppliers to the pharmaceutical industry and sell their products in many countries.

This business depends almost entirely on scientific research and a fund of scientific knowledge, built within the Company over a period of more than twenty years.

This year a new (and much larger) Fine Chemicals plant was completed. It was carefully designed for the exacting requirements of this highly technical business.

After many years of study and experience, our research and production people are leaders in this field, and our Fine Chemicals Division has become an important part of our business.

Our "Shur-Gain" animal feeds division has had an active year. They put into operation two new feed concentrate plants—one at Calgary, Alberta, and one at Cartersville, Georgia. These are the most advanced feed concentrate plants on the continent. They are equipped with a fully automatic system for formulating and mixing feed concentrates. This system gives very precise control at low cost of the many ingredients in feed concentrate formulas. Formulas are recorded on punched cards, and the plants can change from one formula to another merely by inserting a different punched card into the automatic control mechanism.

The Cartersville plant is at the heart of the American chicken broiler industry.

As a result of research on our experimental farm at Maple, Ontario, the Feed Division has recently begun marketing an interesting new prod-

(Continued on facing page)

(Continued from preceding page)

uct named "Vealer." This is a highly efficient feed for veal calves which will produce finished veal calves at a much lower cost than milk feeding. We believe that this product can produce substantial extra earnings for the Canadian dairy farmer, and will result in increased consumption of veal.

Over the years, many new activities such as these have been added to our original packinghouse business. In the future, our scientific research and the experience and knowledge of our staff will continue to lead us into new fields wherever we can provide a new or improved service to the consumer or supplier. We firmly believe that business success is a by-product of service provided.

For the first few months of 1963 cattle marketings have increased about 5½% over the previous year. Hog marketings have been somewhat below last year, but this has been more than made up by greatly increased imports of American pork. These increased supplies have resulted in livestock prices being somewhat lower but still above the price level of two years ago.

For the balance of the year forecasts indicate continuing increased supplies of cattle, hogs and poultry. This will likely result in somewhat lower prices than last year, but we do not look for large price declines from today's levels. The growing demand for meat should permit the supply to be consumed without substantial further reduction of price.

During the year Mr. N. J. McLean, Chairman of the Board of Directors since 1960, retired after fifty years with the Company. His associates gratefully acknowledge his great contribution. Mr. McLean continues as a Director.

Directors report with pleasure that relations with employees throughout the year have been harmonious and co-operative. This has found expression in that most important of all objectives—the steady improvement of the Company's products.

W. F. McLEAN,
President.

Toronto, June 28th, 1963.

Copies of this Report may be secured on request to Canada Packers Limited, Toronto 9.

AUGUST 1963

What Farm Organizations Are Doing

CFA BOARD REVIEWED POLICY AT SEMI-ANNUAL MEET

The Canadian Federation of Agriculture at its semi-annual meeting, held in Winnipeg last month, gave consideration to a wide range of policy questions, including price supports, national marketing legislation, trade in agricultural products, and the role of farm organizations in the ARDA program. In addition it gave detailed study to the Federation's own organizational structure, operations, and financing. It also reviewed its position in relation to international affairs, as well as the policy it will put forward in a number of pending submissions.

Price Support Policy. Agreement was reached that deficiency payments on limited quantities of a farmer's production was not a price support procedure the CFA should advocate for all commodities coming under the Agricultural Stabilization Act, but that such a procedure should be confined to particular commodities when it seemed desirable. The CFA Board also agreed that study should be given to possible ways of making more effective use of the hog price support program for protecting the income position of smaller producers.

The Board decided the Federation should also study other ways by which the income position of smaller farmers could be protected, and how the standard, and amenities of living on such farms could be improved, either by direct or indirect means.

National Marketing Legislation. The CFA Board resolved that, at the earliest possible date, new Federal marketing board legislation be passed along the general lines of draft legislation prepared by the organization, and that the necessary enabling provincial legislation be passed.

Trade In Agricultural Products. The Board, on recommendation of the CFA Policy Committee, agreed to study the following:

1. The actual effects and problems of agricultural imports into Canada.
2. Possible means of alleviating these problems.
3. The implications of any proposed action on Canada's trade relations and the overall position of Canadian agriculture.

ARDA. Agreement was reached on a detailed statement of CFA policy with respect to farm organization participation in the ARDA program. In summary, the Federation indicated that basic to the success of ARDA is a sound and well rounded out information and publicity program. The public must know what is going on. The Federation also advocated the establishment of advisory committees at the national and provincial levels, which would be representative of all vitally interested groups, including farm organizations and co-operatives. Such committees should be the basic means for effective farm organization participation. The Federation believed a Canadian study and training institute should be

established where voluntary leaders, administrators and extension people could study the principles and practice of agricultural resource and community development. Finally, the CFA proposed that representative voluntary agencies should be able to contract with ARDA to carry out research and training projects jointly.

In respect to the Federation itself, the Board of Directors decided to accept the principle of a limited period of 2 years for the presidential term, and that its senior staff officer

NEW CFA OFFICERS



President J. M. Bentley

The Board of Directors of the Canadian Federation of Agriculture, at their semi-annual meeting in Winnipeg last month, elected James M. Bentley as president. Mr. Bentley, who is also president of the Alberta Federation of Agriculture, and has served as first vice-president of the Federation in recent years, succeeds the late Dr. H. H. Hannam. He is a grain and dairy farmer who lives at R.R. 7, Edmonton.

The Board chose Lionel Sorel,

NFU COMMENT ON GRAIN POLICY STATEMENT

The National Farmers Union President, A. P. Gleave, believes that keeping the initial payment for wheat at \$1.50 per bu. will help stabilize the price. In view of the record crop in prospect, and following the negative note in the United States wheat referendum, such price stabilization is needed, he said. He hopes, however, that the \$1.50 initial payment does not mean that the Federal Government has abandoned its election promise of \$2 wheat.

As to initial payments for oats and barley, Mr. Gleave thought they "could have been higher to give grain growers an incentive to produce more coarse grains."

Mr. Gleave also said he shared the hope of the Government that Canadian contributions of wheat and wheat flour to international disposal programs would increase consider-

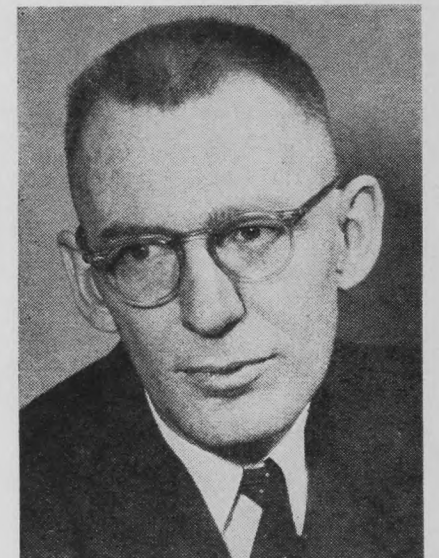
be known in future as the executive secretary. The Board agreed in principle to the need for a 20 per cent increase in annual dues, and will so recommend to the member bodies.

The meeting reaffirmed the organization's desire and capability to continue to act as the united voice of all farmers, and called upon all member bodies to co-ordinate their efforts and policies through the Federation.

The Federation also reaffirmed its desire to continue active interest in international agricultural conditions through membership in the International Federation of Agricultural Producers. The executive-secretary was named as the Federation's new delegate to the IFAP Executive Committee, succeeding the organization's late president, Dr. H. H. Hannam. ✓

president of L'Union Catholique des Cultivateurs, St. Michel, Quebec, as first vice-president and Charles Huffman of Harrow, Ontario, an officer of the Ontario Federation of Agriculture, as second vice-president.

David L. Kirk, who has served for 10 years as secretary-treasurer, was appointed to fill the newly created position of executive-secretary. Mr. Kirk will be in charge of the Federation's Central Office in Ottawa, and directly responsible to the president. ✓



(Capital Press Service photo)

Executive Secretary D. L. Kirk

ably in the next few years. The Farmers Union has always advocated much greater contributions to foreign aid, he pointed out. ✓

FU AND CDA TO LAUNCH SOCIAL RESEARCH STUDY

The Farmers Union and Co-operative Development Association of Alberta has initiated a province-wide, research study on the attitudes of farmers. It is designed to determine (generally) the attitudes of farm people to a general farm organization, and to the farmer-owned commercial organizations now serving rural people. It is hoped the study will provide a better understanding of the present needs of farmers, how these needs are being served, and how best they could be served by farm organizations and otherwise. All phases of the study will be planned and directed by an independent psychology consultant, Dr. L. B. Doscher. ✓

Letters

Food Prices in Perspective

The Rural Route Letter of June . . . has brought out many comments, mostly against the high price of butter. When people complain about the high price of butter, I wonder if they are really honest with themselves, or if they are fooling themselves? I will give an example.

Some time ago I called on some friends in town. The man of the house, a railroad worker getting about \$500 a month in wages, was at home with his wife. We started to talk about the price of milk and butter. They told me prices were too high, and therefore they did not buy as much as they should for the children.

Then the three sons came home and made a dash for the refrigerator and soft drinks. While the boys drank their very "inexpensive and nourishing" drinks, we kept on arguing about prices. Well, all the arguing made my friends thirsty, and out of the fridge came three bottles of beer.

Of course I had the proof that they could afford to buy all the milk and butter they required . . .

Before anyone says they cannot afford to buy butter or milk, I will ask him: "How many useless things do you buy, such as beer, soft drinks, smokes, cosmetics, etc.?"

MR. A.R.,
Dauphin, Man.

Ready for Work



Ida Ettinger, of Lattie's Brook, tamed these two sheep to be harnessed to a wagon and to pull quite a load. They won a prize at the Truro Exhibition. . . .

We like your magazine so much.

MRS. R. TULLEY,
Carroll's Corner, N.S.

Dairyman's Wife Speaks Out

Living in the heart of Ontario's dairyland, with a husband who runs an average dairy farm, I read with horror the letter by Mrs. P.H.Q. (July issue) suggesting the Government cut off the subsidies and let butter find its own level.

"Any time butter comes down to 40 to 45 cents a lb. I'll gladly buy." Well, lady, that should be the price of one-half a pound of butter, without benefit of subsidies, if the dairy farmer is to have his comparable share of the nation's income. . . .

When one considers it takes the cream from one of our 80-lb. cans of

milk to make less than 3 lb. of butter (and skim milk isn't too valuable at the processing plant), you can understand why we dairy farmers constantly complain that our returns are not in line with present day salaries and wages. In fact, our returns have been steadily shrinking for years. Looking around the countryside, one can see evidence of this in the rural community. . . .

MRS. W.L.B.,
Oxford County, Ont.

Buy from the Farmer

. . . Nowadays just about everyone drives a car. If you want butter, cream, eggs, poultry, vegetables, take a drive out to your nearest farm. Buy your butter for 25 cents per lb. instead of paying a high price in your local grocery store. Wipe out the middleman. Buy your farm produce at less than wholesale price.



HI FOLKS:

If anybody's looking for a single symbol to show the progress of mankind I guess it will have to be a circle. Like women's fashions, most things we do appear to go full circle until we end up where we started.

Years ago, pioneer farmers were happy enough to get wooden houses and barns without worrying about having them painted. Painted buildings were a luxury for rich folks to enjoy. Then money became a bit more plentiful and everybody decided to spruce up. Red barns and white farm houses appeared all over the countryside.

It was only a short step from here to better paints that came in every shade imaginable. Then somebody decided the most attractive form of decoration was "weathered" boards. That is to say, boards with no paint on 'em. Of course, only folks with lots of money can afford this new luxury because you need a pretty ritzy house to carry it off. An unpainted small house just looks like you're short of cash, and that's supposed to be some sort of disgrace nowadays.

I know a fella whose mother had to scrub floors so she could raise her five kids. He came out of World War II with a driving ambition to make a lot of money so he could "have the best" as he put it. Everything he bought had to be the most up-to-date obtainable. For furniture, he wanted no part of anything that reminded him of the old stuff his mother had to put up with.

Well sir, he DID make a lot of money. But, when he could buy anything he wanted, he became more and more dissatisfied. He kept re-decorating his house and buying new furniture to match. Then he began

But don't go blaming the farmers. We don't get high prices for our cream or eggs. . . .

Can anyone feed 12 chickens for 8 cents a day plus labor? Yet that's what we get for small eggs. Or did you know that 5 gal. of cream produces 25 lb. of butter? What does a farmer get for 5 gal. of cream? About \$3. So, if there is a shortage of butter, you can't blame the farmers for quitting the delivery of their produce.

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MRS. A.B.,
Bow Island, Alta.

moving from one house to another, always buying a complete new set of furniture on the advice of some expert decorator, who was actually only an expert at selling furniture.

The last time I paid this friend a visit, he had caught the antique bug. All his spare time was spent making the rounds of auction sales looking for pieces of furniture that would give his place the quiet, genteel air which goes with old things made in a day when men took a pride in their craftsmanship. One of his most valuable "finds" was an ancient rocking chair similar to the one his mother used to get such comfort from after a hard day's work with her scrubbing brush.

Another friend told me of a furniture factory in the States where the experts wracked their brains trying to decide on a suitable tone or color for a wall behind a big display of modern furniture. They wanted a backdrop which breathed quality and good taste without "intruding." What they finally did was go into the country and buy an old, unpainted barn. They dismantled this, scrubbed the silvery, age-worn boards and set them up behind their furniture display. Now they had the special effect they wanted.

That's what I mean about going full circle. And it's harmless enough in the cases mentioned. But I get a bit worried when I see a kind of world developing where we have to build underground shelters in our back yards and stock them with food and water. In the cave man era our ancestors lived in much the same fashion. I'd hate to see us advance to the point where we landed that far back in history.

Sincerely,
PETE WILLIAMS

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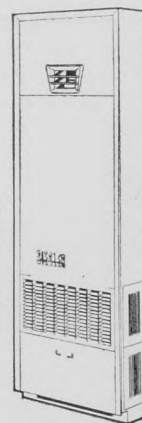
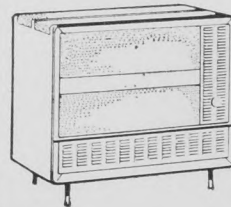
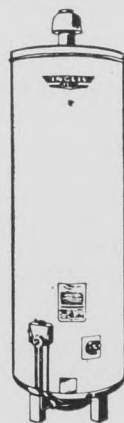
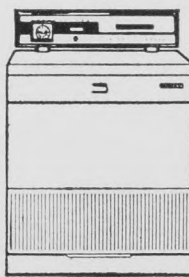
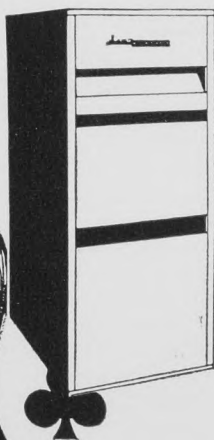
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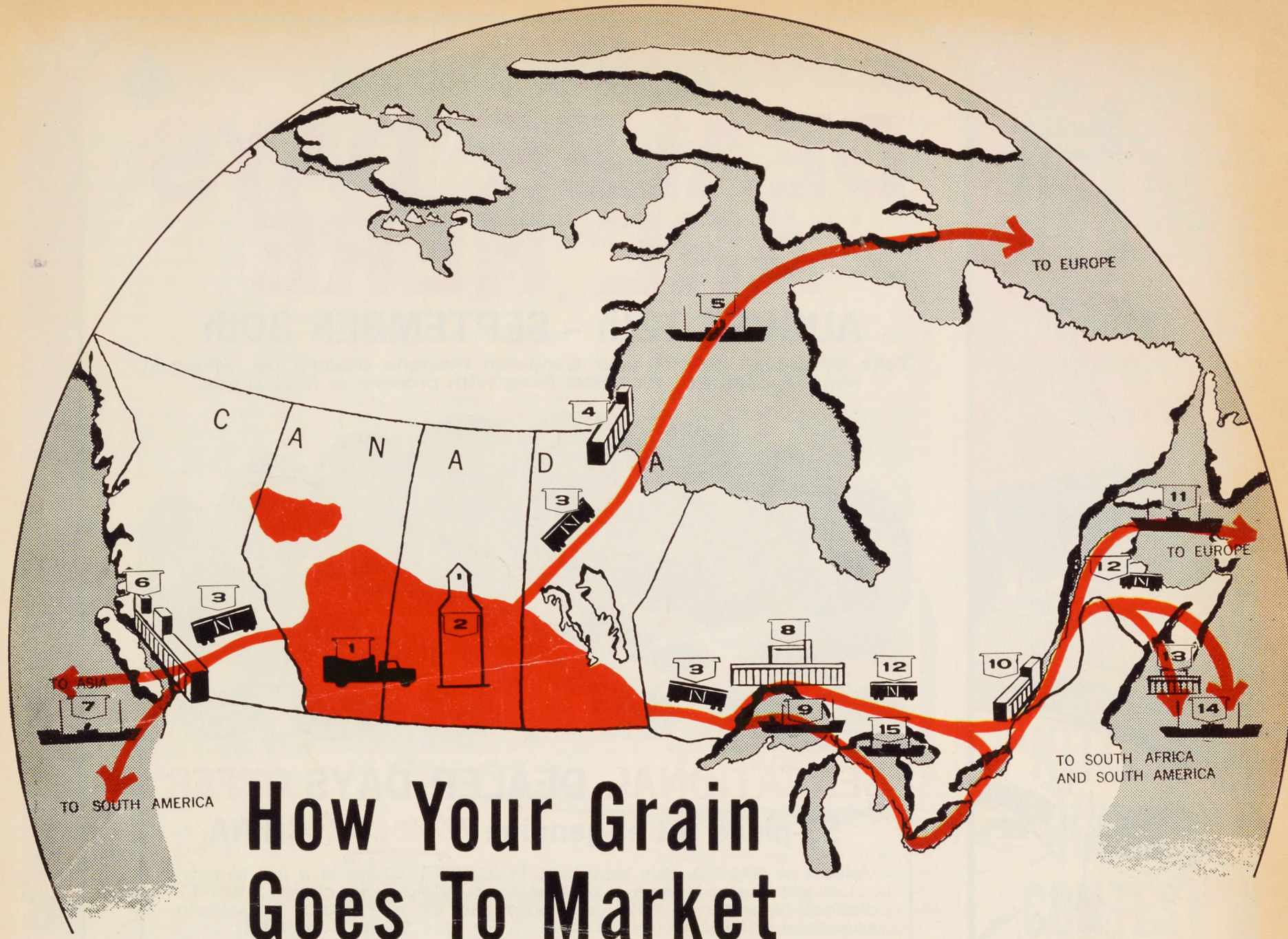
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How Your Grain Goes To Market

Moving western grain to market is a complex business. It's part of the reason why prairie farmers depend on farmer-owned and controlled organizations (like United Grain Growers) to safeguard their interests. But since it is your grain being sold, you might want to know what happens to it after you deliver to the elevator. This map and information will help.

1 Everything begins with Western Canadian farmers — 218 thousand growers. They are represented here by the truck that starts grain rolling to market.

2 First stop is the country elevator. There are some 5,200 of these at 1,950 points. Together, they store about 335 million bushels—more than all the wheat exported last year. These elevators are owned by 36 companies, but only 19 operate more than one elevator. Average country elevator capacity is 70 thousand bushels, a figure that is gradually increasing.

3 The elevators are located along 4 railways: CPR, CNR, Northern Alberta Railways, and Pacific Great Eastern. These railways carry most of the grain to the Lakehead, Vancouver, and Churchill terminals. Some is delivered direct to mills and maltsters in Western Canada. In the 1961-62 crop year, over 253 thousand box cars were loaded at country elevators.

4 Shortest route to Europe is by way of Churchill. There, the CNR hauls box cars to a 5 million bushel terminal elevator operated by the National Harbours Board. In the 1961-62 crop year, this terminal handled 19 million bushels, about 5% of all grain that went overseas.

5 Grain is taken out of Churchill in ocean "salties". Destination: usually Europe.

6 Lately, about half of Canada's exports have passed through Pacific Coast terminals, on the way to China, Japan, other Asian and Pacific lands, Europe, and to some countries on the west coast of South America. Vancouver/New Westminster is the port area for most of this activity, with 22½ million bushel capacity. Victoria and Prince Rupert have smaller terminal elevators.

7 Some grain from Pacific Coast terminals is used locally, but most is carried away in salt water ships. Vancouver can handle the biggest, and some "salties" can load a million bushels. Altogether they hauled away 180.9 million bushels of grain in the 1961-62 crop year.

8 Greatest terminal port of all is the Lakehead where 13 companies own 24 terminal elevators. Together they can hold about 100 million bushels. All grain going East is cleaned, weighed, inspected and graded at the Lakehead... then it is carried farther in one of three ways.

9 Huge lake boats carry grain to forward points ranging from Georgian Bay ports to Baie Comeau, Quebec. But Montreal and other Quebec ports are now their most frequent destinations.

The biggest "lakers" are 730 feet long and 75 feet wide. These ships pack a million bushels of grain downstream, sometimes return part way with 25 thousand tons of iron ore.

10 All the Eastern terminals (except Baie Comeau) supply the big Eastern Canadian market. Usually there is another rail or truck ride for the grain but some terminal elevators are attached directly to big flour or feed mills. Much of the 14 million bushels of grain exported to the U.S.A. is railed from these terminals.

But, particularly for the Quebec ports, the big business is reshipping the grain overseas in "salties".

Capacity of the Ontario Eastern terminals is 55 million bushels. The Quebec terminals hold 45 million bushels. Canada's biggest terminal elevator, at Baie Comeau, has a capacity of 11,868,000 bushels.

11 Ocean vessels carrying grain from Seaway terminals go mostly to Europe. Some of this traffic is to South Africa and South America. In 1961-62, 129 million bushels of grain left Eastern terminals for overseas.

12 The CNR and CPR carry some grain from the Lakehead to Eastern terminals, to be distributed as in No. 10 above. Some goes

by rail all the way to Halifax and Saint John, N.B. But most of the grain for these Atlantic Seaboard terminals is picked up by the railroads at the Eastern terminals from Georgian Bay to Quebec City.

13 The Halifax terminal elevator holds over 4 million bushels, and those at Saint John hold over 3 million. These ports are never iced in. Cost of shipping grain through Halifax and Saint John is greater than through Seaway terminals, and so importers usually prefer the Seaway unless they need grain in the winter.

14 The biggest ships in the world can enter Halifax harbour. In the 1961-62 crop year, "salties" carried 21.8 million bushels of grain out of these ports. That was better than 5% of all grain sent overseas.

15 The newest route out of the Lakehead is on salt water ships direct to Europe or other overseas markets. Not all "salties" can navigate the Seaway, and some shippers have not yet tried the route or are still just experimenting with it. In the 1961-62 crop year, more than 15 million bushels left the Lakehead in ocean vessels. The biggest load was under 500,000 bushels.



The Farmers' Company